

THE GOVERNMENT OF THE PHILIPPINE ISLANDS
BUREAU OF CIVIL SERVICE

MANUAL OF INFORMATION

PHILIPPINE CIVIL SERVICE

THE REPORTS OF THE BUREAU OF CIVIL SERVICE, SHOWING THE RESULTS OF ITS WORK AND CONTAINING THE REVISED CIVIL SERVICE ACT, THE RULES, AND REGULATIONS, MAY BE OBTAINED UPON REQUEST THEREFOR, OR CAN BE CONSULTED AT THE OFFICE OF THE BUREAU IN MANILA AND AT THE OFFICES OF THE PROVINCIAL BOARDS; ALSO AT THE LIBRARIES OF THE PRINCIPAL PUBLIC INSTITUTIONS IN THE UNITED STATES AND THE PHILIPPINE ISLANDS

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FREQUENCY OF EXAMINATIONS.

SECTION 1. If no schedule of examinations is received with this Manual one will be furnished by the Bureau of Civil Service on request. In the provinces general clerical examinations and also the civil engineer, surveyor, and junior grade technical examinations are held each year during February or March; all examinations for the teaching service, including the assistant examination, in May; and all examinations (except examinations of the junior grade for the teaching service, and a few examinations not given in the provinces) again in September of each year. In Manila, as a rule, examinations are given on the same days as in the provinces and in addition the first grade English and most examinations of which the first grade English forms a part are given on several intervening dates; the second grade English examination is given every other month; and certain English examinations such as first class fireman, first class patrolman, first class prison guard, junior stenographer, junior typewriter, and junior draftsman are given every month. The second and third grade Spanish examinations are given in Manila for only actual residents of the provinces who desire appointment in the provinces. They do not qualify for appointment in Manila. Examinations for district inspector (Bureau of Posts), senior draftsman, internal revenue agent, junior compositor, weather observer, and other examinations not mentioned in this manual are held whenever the needs of the service require. Applicants who file applications for these positions will be notified when they may be examined. An applicant who contemplates entering the service should file an application *without delay*. Applications for the examinations in Manila should be filed at least one week before the date of the examination, except from applicants who arrive in Manila during the week prior to the examination. If application is made for an examination the date of which is not fixed in the schedule, the applicant will be notified when the examination may be taken; but special examination will not be given to individuals on dates other than those fixed in advance for the examination of all applicants who have filed properly completed applications. Each applicant should bring or send his application to the Director of Civil Service, who will mail him an admission card. In case the admission card is not received in time, the applicant may report before eight o'clock on the day of examination to the chairman of the examining committee, who will admit him if examination papers are available after all those holding admission cards have been admitted.

How to proceed to secure an examination.

SEC. 2. Applicants residing in the Philippine Islands who desire to be examined for the Philippine civil service or for the Federal service in the Philippine Islands may apply by letter or in person to the Bureau of Civil Service, Manila, or to the examining committees at provincial capitals, for a blank form of application for examination. Each applicant should himself apply for an application blank, as it is not the practice to furnish them to one person for the use of another.

The application should first be closely read by the applicant and then accomplished with great care, every question being answered. Full instructions for the filling in and completion of the application will be found on the blank itself, and applicants are cautioned to conform in all respects to the printed instructions. Failure to do this will cause unnecessary delay and annoyance to the applicant as well as to the Bureau of Civil Service. The application must be subscribed and sworn to before an

officer duly authorized to administer oaths. The oath may be administered in Manila without charge therefor by an examiner of the Bureau of Civil Service. If the oath is executed in the Philippine Islands, the affiant's cedula must be exhibited to the officer administering the oath, who must record the date, number, and place of issuance of the same on the lines provided therefor, and a 20-centavo documentary revenue stamp must be affixed and canceled. The vouchers must be filled by reputable persons who have been personally acquainted with the applicant for a period of at least six months. After the application has been properly completed and executed it should be brought or forwarded to the Bureau of Civil Service.

Applications for examination may be obtained and filed at any time, but unless received one week prior to the date fixed for an examination in Manila, or in sufficient time prior to the holding of an examination in provincial capitals to permit of the shipment of papers to those points, they may not be accepted for that examination; but, if properly executed and approved, a card of admission will be sent to the applicant for the next examination of the kind to be held at the place selected.

Information for enlisted men of the United States Army serving in the Philippines.

SEC. 3. Enlisted men of the United States Army will not be admitted to examination unless permission of the proper military authorities to enter the examination is submitted to the Bureau of Civil Service with the application. A letter requesting permission to be examined should therefore be forwarded through military channels to the Adjutant-General, Philippines Division. In this connection attention is called to the fact that the military authorities will not grant permission to be examined for the purpose of appointment in the Philippine civil service to enlisted men who have more than six months to serve to complete their enlistment. Permission for examination with a view to appointment in the Federal civil service is sometimes granted to enlisted men who have more than six months to serve.

Persons who are debarred from examinations.

SEC. 4. No person will be admitted to an examination—

(a) Who is under 18 or over 40 years of age, unless, in the discretion of the Bureau of Civil Service, the needs of the service require that the age limits be extended for a particular kind of examination. The age limits can not be extended for any particular person or class of persons.

(b) Who is not a citizen of the United States unless he has been honorably discharged from the Army, Navy, or Marine Corps of the United States; or who is not a native of the Philippine Islands or who has not, under and by virtue of the treaty of Paris, acquired the political rights of natives of the Islands. This limitation may be waived with the approval of the Governor-General.

(c) Who fails to take the oath of loyalty required of all applicants for examination in the Philippine Islands and to furnish satisfactory evidence that he is loyal to the United States of America as the supreme authority in the Islands, or who has taken the oath of allegiance to the United States and violated it.

(d) Who, upon physical examination, is found to be disqualified for efficient service.

(e) Who uses intoxicating liquors to excess.

(f) Who is an officer or an enlisted man in the Army, the Navy, or the Marine Corps of the United States, or in the Philippines Constabulary, and has not filed with his application written permission from proper authority to enter an examination.

(g) Who has been guilty of delinquency or misconduct which in the opinion of the Bureau of Civil Service should disqualify him for the service. (See sec. 7, Civil Service Rule II, and sec. 6, Rule XIII.)

(h) Who intentionally makes a false statement in any material fact, or practices or attempts to practice any deception or fraud in securing his examination, registration, or appointment.

(i) Who has failed to receive absolute appointment at the end of his probationary service for the position for which he again applies within one year from the expiration of the period of his probationary service.

(j) Who within six months has taken the same kind of examination for which he again applies and is eligible as a result of that examination or who within six months has failed with a rating of less than 65 per cent in an examination of the same or a lower grade. (See sec. 49.)

(k) Who has been guilty of collusion in examination within one year. (See sec. 46.)

What applicants should bring to the examination room.

SEC. 5. All applicants in examinations where writing is required must provide themselves with pens, penholders, erasers, ink, and blotters. Applicants should not bring paper for use in the examination room, as such blank and scratch paper as may be needed in connection with the examination sheets will be furnished. Applicants for the stenography and typewriting examinations should provide themselves with typewriting machines and stands or tables. Applicants for the bookkeeper, draftsman, or any other examination requiring the use of instruments must furnish the instruments required. Each applicant must bring his card of admission to the examination room and present it to the examiner in charge.

Haste and carelessness in examinations.

SEC. 6. Many competitors fail to pass an examination or fail to obtain a satisfactory rating not through lack of knowledge but principally owing to failure to follow the directions printed on each sheet and to haste and carelessness in reading and interpreting questions and in writing the answers. With few exceptions, the time used by a competitor in completing a subject is not an element in determining the ratings. While a competitor must finish his examination within the time allowed, he should carefully, thoughtfully, and completely answer each question.

First grade examination.

SEC. 7. Time allowed, six hours. Application Form No. 2. The entrance salary varies according to the requirements of the position to be filled and the experience and ability of the eligibles. Subjects of examination and relative weights on the scale of 100: Spelling, 10; arithmetic, 25; letter writing, 20; penmanship, 10; copying from rough draft, 10; history and government of the United States, and geography, 10; experience and training, 15. The following are specimen questions and tests in this examination:

Spelling.—(The examiner pronounces twenty words and gives a short definition of each word. The competitor is required to write only the word and not its definition.) Asylum, strychnine, souvenir, seizing, changing, physical, concede, collectible, minimum, reference, comparative, aggregate, forfeit, circumference, hygiene, tonnage, defendant, citation, principle, condescension.

Letter writing.—Two subjects for letter writing will be found at the head of the blank sheet upon which the letter is to be written and the competitor may select either of the two subjects upon which to write a letter of not less than 150 words. The exercise in letter writing is designed chiefly to test the competitor's skill in composition. In rating the letter its errors in form and address, spelling, capitalization, punctuation, syntax, style, and its adherence to and treatment of the subject will be considered.

Penmanship.—The rating on penmanship will be determined by legibility, neatness, rapidity, and general appearance, and by correctness and uniformity in the formation of words, letters, and punctuation marks in the exercise of letter writing. No particular style of penmanship is preferred.

Spelling, use of capitals, and all omissions and mistakes will be taken into consideration in rating this subject.

Directions to the competitor.—Write on the accompanying sheet a corrected copy of the rough-draft manuscript below. Correct all errors in syntax, orthography, punctuation, and capitalization; write in full abbreviated words, and make all indicated insertions, transpositions, etc. Do not paraphrase the language of the copy, or insert, omit, or modify words, phrases, or punctuation marks, except as may be necessary to correct errors.

The multiplication of books and its distribution through all conditions of society is one of the very interesting features of our times, at a small expense a man can now possess himself of the most precious treasures of Eng. Literature. Books by their costliness were confined to a few, is now accessible to ^{the multitude} ~~high and low~~ and in this way a change of habits are going on in society. For most all of their knowledge and objects of thought instead of depending on casual remark and careless conversation instead of depending forming their judgments in crowds and receiving their chief excitement. Men are now learning to reflect alone and to study to follow out subjects continuously to determine for himself what shall engage his mind and to call to his aid the knowledge original views and reasonings of men of ~~every~~ ^{all} country and age. An independence of judgment and a thoroughness and extent of information unknown in former times (must be the results)

highly favorable to the culture of the people

from the voice of neighbors

History and government of the United States, and geography.—1. Give the year during which and the name of the President in whose administration each of the following was acquired by the United States: Alaska, Texas, Florida, and California. 2. Explain the veto power of the President of the United States. How may it be defeated? 3. In what country is each of the following: Vera Cruz, Oporto, Madras, the Bosphorus, Lake Maracaibo? 4. Locate definitely the following: Nueva Cáceres; Basilan Strait; Tablas; Calbayog; the subprovince of Amburayan. 5. On what body of water is each of the following cities of the United States: Bangor, Leavenworth, Norfolk, Louisville, Baton Rouge?

The first grade examination as given for positions in the Federal civil service in the Philippine Islands is the same as that described above except that the subject of copying from plain copy is given instead of the subject of history and civil government of the United States and geography. No rating is given for experience and training. Subjects of examination and relative weights on the scale of 100: Spelling, 15; arithmetic, 25; letter writing, 25; penmanship, 15; copying from plain copy, 10; copying from rough draft, 10.

Second grade examination.

SEC. 8. Time allowed, four and one-half hours. Application Form No. 2. Entrance salary usually ₱480 per annum. Subjects of examination and relative weights on the scale of 100: Spelling, 20; arithmetic, 20; letter writing, 20; penmanship, 20; copying from plain copy, 20. The following are specimen questions and tests in this examination:

Spelling.—(The examiner pronounces twenty words and gives a short definition of each word. The competitor is required to write only the word and not its definition.) Question, column, identity, competitor, precious, guardian, preliminary, separate, destruction, specific, patience, irregularity, exceed, language, sufficient, business, receive, copyist, certy, specimen.

Arithmetic.—1. Add the following numbers: 7,820,140; 616,487; 18,021,762; 5,329,456; 5,647,893; 432,890; 23,578,932; and 45,004. From the sum of these numbers subtract 8,641,762. 2. Multiply 794.4 by 450g, and divide the product by 49.65. 3. How many square feet of lead are required to line an open cistern which is 4 feet 6 inches long, 2 feet 8 inches wide, and which contains 43.2 cubic feet? 4. In building a railroad a company uses 4 ties to each 2 m. 5 dcm. of track. It builds a line 9 km. 8 hm. in length, and, in order to insure a sufficient supply of ties, orders $\frac{3}{4}$ more than would be required at the above rate. How many ties are ordered? (1 km.=10 hm.=1,000 m.=10,000 dcm.) 5. The amount of juice in the sugar beet is $\frac{1}{10}$ of its weight, but the amount that can be extracted is only $\frac{1}{10}$ of its weight. How many pounds of sugar beets are required to furnish 950 pounds of juice, and how many pounds of juice will be thrown away with the pulp?

Letter writing.—Two subjects for letter writing will be found at the head of the blank sheet upon which the letter is to be written, and the competitor may select either of the subjects upon which to write a letter of not less than 125 words. The exercise in letter writing is designed chiefly to test the competitor's skill in composition. In rating the letter its errors in form and address, spelling, capitalization, punctuation, syntax, style, and its adherence to and treatment of the subject will be considered.

Penmanship.—The rating on penmanship will be determined by legibility, neatness, rapidity, and general appearance, and by correctness and uniformity in the formation of words, letters, and punctuation marks in the exercise of copying from plain copy. No particular style of penmanship is preferred.

Copying from plain copy.—Make an exact written copy of the paragraph given. Paragraph, spell, capitalize, and punctuate as in the copy. All omissions and mistakes will be taken into consideration in rating this exercise.

Third grade examination.

SEC. 9. Time allowed, three and one-half hours. Application Form No. 2. Entrance salary usually ₱300 or ₱360 per annum. Subjects of examination and relative weights on the scale of 100: Spelling, 20; arithmetic, 20; letter writing, 20; penmanship, 20; copying from plain copy, 20. The following are specimen questions and tests in this examination:

Spelling.—(The examiner pronounces twenty words and gives a short definition of each word. The competitor is required to write only the word and not its definition.) Regular, possible, people, pledge, divide, useful, salary, official, position, eager, notify, explain, commence, touch, sign, special, advance, found, entrance, failure.

Arithmetic.—1. Add the following numbers: 426,985; 718,643; 5,926,718; 2,046; 359,175; 861,722; and 103,141. 2. Divide 25,877,823 by 3,549. 3. Multiply 58,927 by 8,075 and from the product subtract 28,796,747. 4. The driver of a carromato took an average of 16 fares a day at 35 centavos a fare. In thirty days his total expenses were ₱24. How much did he save? 5. In February, 1900, 6,739,632 pounds of rice were imported from Spain, China, and the East Indies; 3,726 pounds were imported from Spain and 551,834 pounds from the East Indies. How many pounds were imported from China?

Letter writing.—Two subjects for letter writing will be found at the head of the blank sheet upon which the letter is to be written. The competitor may select either of the two subjects upon which to write a letter of not less than 100 words. The exercise in letter writing is designed chiefly to test the competitor's skill in simple composition. In rating the letter its errors in form and address, spelling, capitalization, punctuation, syntax, style, and its adherence to and treatment of the subject will be considered.

Penmanship.—The rating on penmanship will be determined by legibility, neatness, rapidity, and general appearance, and by correctness and uniformity in the formation of words, letters, and punctuation marks in the exercise of copying from plain copy. No particular style of penmanship is preferred.

Copying from plain copy.—Make an exact written copy of the paragraph given. Paragraph, spell, capitalize, and punctuate as in the copy. All mistakes and omissions will be considered in rating this subject.

Assistant examination.

SEC. 10. Time allowed for the required subjects, two days of seven hours each. Application Forms Nos. 2 and 47. The first three subjects are given on the first day and the remaining required subjects on the second day. The assistant examination is held at frequent intervals in the United States by the United States Civil Service Commission. Subjects of examination and relative weights on the scale of 100: Thesis (300 to 400 words to be written on one of two topics given), 20; correction of rough-draft manuscript (200 words), 15; mathematics (arithmetic, algebra including quadratics, and plane geometry), 15; history and civil government of the United States, 15; general history and geography, 10; colonial government and administration, 10; political economy, 5; education and experience, 10. Eligibility in the assistant examination is required before a teacher who did not enter the service as a result of this examination may be promoted to the position of division superintendent of schools. Specimen questions of all required subjects except copying from rough draft are given below. The rough-draft test is similar to that in the first grade examination (see sec. 7) but more difficult.

Each competitor in the assistant examination in the United States may also take one or more of the following optional subjects (three hours are allowed for the examination on each optional subject): expert accounting; agriculture; auditing of accounts; bookkeeping; botany; chemistry; civil engineering; educational methods; electrical engineering; finance; forestry; geology; higher mathematics, to and including calculus; Spanish language; common law; international law; Roman or civil law; land laws of the United States; mining laws of the United States; mechanical engineering; mineralogy; mining engineering; physics; and theory and practice of statistics.

Thesis.—Write a thesis of from 300 to 400 words on *one* (and only one) of the following subjects: 1. The probable results of the installation of the Philippine railway system. 2. The relation of foreign commerce to national growth and prosperity.

Mathematics.—1. A man buys an estate for P59,103 on 30 days' credit. By paying cash he could have bought it for 2 per cent less. If he had written a note due in 30 days without interest, discounted it at the bank, and paid cash for the estate, how much less money would he have had to pay at the end of the 30 days? (Discount is reckoned at 6 per cent per annum without grace. 360 days=1 year.) 2. The inside dimensions of an uncovered rectangular stone cell are: Length, 1 dcm.; width, 9 m.; height, 2 m. 8 dcm. The walls are 7 dcm. 5 cm. thick and the base or floor of masonry is 4 dcm. thick. What did it cost to build the above at P3.35 per cu. m.? 3. Solve for all values of x and y : $x^2+2xy=91$
 $x^2-4y^2=13$ } 4. If one pound of tin loses $\frac{5}{7}$ of a pound, and one pound of lead loses $\frac{2}{3}$ of a pound, when weighed in water, how many pounds of tin and how many of lead are there in a mass of 60 pounds that loses 7 pounds when weighed in water? 5. Construct, on a given base, an isosceles triangle equivalent to a given triangle. Give proof. 6. If the middle points of two adjacent sides of a parallelogram are joined, prove that a triangle is formed which is equivalent to one-eighth of the entire parallelogram.

History and civil government of the United States.—Of the seven questions immediately following, answer six and only six. 1. Write sentence biographies of the following: John Elliot, Peter Minuit, Lord Say, Sir Wm. Berkeley. 2. Name the men serving in 1790 as (a) Vice-President, (b) Secretary of State, (c) Secretary of the Treasury, (d) Secretary of War, (e) Chief Justice of the Supreme Court. 3. Give a brief

account of the second United States bank with respect to (a) utility, (b) period of activity, (c) failure to obtain recharter. 4. Describe (a) the Wilmot Proviso and (b) the Kansas-Nebraska Bill and state what legislative action if any was taken on each. 5. What were the conditions of the treaty of Guadalupe Hidalgo (end of the Mexican War)? 6. Describe fully the Mason and Slidell affair. What was the reason for the final action taken by the Federal Government in the matter? 7. Give a comprehensive review of the principal facts relating to the annexation of Hawaii by the United States. Of the three questions immediately following, answer two and only two.

8. Do the members of the Cabinet have the right to take part in the debates in Congress on matters pertaining to their departments? Give an argument for or against the present plan. 9. Give the provision of the Constitution with respect to the convening and adjourning of Congress by the President. 10. (a) Name five classes of cases that come under the original jurisdiction of the Federal courts. (b) Name four rights that in criminal prosecutions are guaranteed to the accused by the Constitution.

General history and geography.—Of the seven questions immediately following, answer six and only six. 1. State who or what each of the following was and show the historical importance of each: Solon, Aristides, The Tarquins, Pyrrhus, First Triumvirate. 2. State the principal historical facts connected with the life of *one* (and only one) of the following: Hildebrand, Richard the Lion-Hearted. 3. Sketch the events leading up to the death of Charles I of England. 4. Write a short account of the Italian City Republics. 5. (a) Name a French ruler contemporary with Charles V of Germany. (b) Summarize the principal events in the reign of one of these two monarchs. 6. Name five houses which have produced kings of England. Name one king of each of the houses named; and mention an event of importance in the reign of each king named. 7. State in chronological order the main events in the career of Napoleon Bonaparte. Of the three questions following, answer two and only two.

8. Draw an outline map of South America, indicating thereon the boundary lines and names of the different nations, three rivers of importance, and name the principal products of the different countries. 9. Give a comprehensive description of *one* of the following: Egypt, Italy, Spain. (Suggestions: Natural resources, extent of territory, cities and their locations, products, industries, commerce and government.) 10. (a) Under the control of what nation is each of the following? Sumatra, northern portion of Borneo, Moluccas (or Spice Islands), Fiji Islands, Nova Zembla, Syria, Tasmania, Sardinia, Burma. (45 points.) (b) Name one important export of each of five of the dependencies mentioned above in (a), exclusive of the Moluccas (or Spice Islands). (25 points.) (c) What nations share New Guinea and what section of the island is occupied by each? (30 points.)

Colonial government and administration.—Of the following questions, answer five and only five. 1. (a) Describe and criticize the Proconsular (Roman) system of governing colonies. (b) What was the essential weakness of the Greek method of colonization? 2. (a) How did the Dutch come into possession of their Malaysian possessions? (b) Discuss not less than three important changes in the administration of Java during the nineteenth century. 3. Describe the form of government of either Algeria or Indo-China. 4. Carefully distinguish between the following terms used in connection with British colonies: Responsible Government, Representative Government, Crown Colony. Give an example of each class. 5. What is the nature of Great Britain's control in Egypt? In India? Of France's in New Caledonia? Of Germany's in German Southwest Africa? Of Portugal's in Madeira? (Answer briefly.) 6. Name three of the important defects in the Spanish system of control over Mexico. 7. Give a summary of the history of either Portugal or Genoa as a colonizing power, including a statement of (a) epoch of greatest brilliancy, (b) extent of possessions, (c) nature of control, (d) causes of prosperity, (e) causes of decay.

Political economy.—Of the following questions, answer five and only five. 1. What is meant by a Clearing House? Discuss the advantages of the clearing-house system. 2. Define clearly: Value, price, real wages, cost of production. 3. What is meant by: (a) "Unearned increment," (b) Doctrine of "Laissez faire," (c) Seignorage, (d) Tabular Standard (or Multiple Standard) for deferred payments? 4. State what is meant by "division of labor" and discuss its effects upon production. 5. May a nation's exports habitually exceed or habitually fall short of its imports? Explain fully. 6. Describe the workings of the Law of Diminishing Returns.

Bookkeeper examination.

SEC. 11. Time allowed, nine hours. Application Form No. 2. Not more than six hours are allowed for the first grade subjects, all of which are given on one day. The remaining time is allowed on the subject "Practice of bookkeeping" which is not given on the same day as the first grade subjects. The names of competitors who fail on the subject of bookkeeping but obtain an eligible rating in the first grade subjects are entered on the first grade register. Subjects of examination and relative weights on the scale of 100: First grade examination, 35; practice of bookkeeping, 50; experience and training, 15. Competitors may take, in addition to the regular subjects of the bookkeeper examination, the following optional subjects of the assistant examination: "Auditing of accounts," "Expert accounting." The following specimen questions and tests indicate the general character of the second subject:

Practice of bookkeeping.—The first exercise is given a weight of 2 and the second a weight of 1. (The practice of bookkeeping is given in English only.)

FIRST EXERCISE.

Instructions.—On the blanks furnished make the necessary double-entry journal entries for the transactions found in the memorandum below. Keep bank account separate from the cash account. Make no daybook entries:

August 2, 1897. James Worley began business with the following resources: Store building and lot, ₱4,250; cash in Market Bank, ₱1,750, in safe, ₱357.28; Wilton & Co.'s note for ₱658.50, dated July 28, due ten days after date. Liabilities were as follows: Account in favor of John R. Steeves for ₱450; note for ₱1,893.75 in favor of E. P. Coleman, dated July 20, due sixty days after date, with interest at 6 per cent, interest accrued to date, ₱4.10. *August 4.* Bought with check 10 shares Market Bank stock at 69. (Par value, ₱100.) *August 6.* Bought of Graber Bros. merchandise worth ₱3,875. Gave in payment check for ₱400, balance on account. *August 7.* Wilton & Co.'s note for ₱658.50 (mentioned in resources) has been protested for nonpayment. Protest fee, ₱1.65. *August 10.* Sold J. Lovell Newell merchandise valued at ₱3,134.27. Received in payment at its present worth, my note for ₱1,893.75 favor of E. P. Coleman (mentioned in liabilities), present worth ₱1,900.38, balance on account. *August 12.* Drew a sight draft on J. Lovell Newell for ₱325 and remitted it to Graber Bros. on account. *August 13.* Sold to Abner Smith 10 shares Market Bank stock at 71 and received his check on Market Bank for amount. *August 14.* Received of J. Lovell Newell on account his draft at thirty days' sight on E. P. Coleman for ₱560. Presented above draft for acceptance and Coleman has accepted same, payable at Market Bank. *August 15.* Due W. H. McCord ₱50 salary for one-half month. Paid W. H. McCord one-half the amount due him in cash. *August 16.* Discounted at 8 per cent my note for ₱1,800 given for sixty days at Market Bank and received credit for proceeds. Discount, ₱25.20.

SECOND EXERCISE.

From the data given below make out a balance sheet:

On August 31, 1897, James Corbin and John Smith, under the firm name of Corbin & Smith, had on hand as per inventory the following: Merchandise, ₱2,405; real estate, ₱7,800; stationery, ₱12.50. The footings of the accounts in their ledger were as follows:

Debit footings.—James Corbin (member of firm), ₱260; cash, ₱2,875.25; Hartford Bank, ₱2,989; real estate, ₱7,500; merchandise, ₱6,650.89; bills receivable, ₱2,689; bills payable ₱975.80; expense, ₱167.50; interest and discount, ₱40.78; Levi Williams, ₱900. *Credit footings.*—James Corbin (member of firm), ₱6,567.44; John Smith (member of firm), ₱7,897.50; cash, ₱1,297.28; Hartford Bank, ₱897.75; merchandise, ₱5,489.80; bills receivable, ₱1,600; bills payable, ₱1,275.80; interest and discount, ₱22.65.

Stenographer examination.

SEC. 12. Time allowed, six hours. Application Form No. 2. For subjects, weights, and dates of this examination applicants in the United States should apply to the United States Civil Service Commission. The subjects and weights of the examination as given in the Philippines are: Arithmetic (first grade), 5; letter writing (first grade), 15; copying from rough draft (first grade), 10; stenography, 60; experience and training, 10.

The practical test in stenography consists of two exercises, a letter and a speech, each containing 260 words. The dictations are given to all the competitors together. A preliminary test is given at the rate of 80 words a minute (and at no other rate) in order to familiarize the competitors with the examiner's manner of dictation. This preliminary test will not be considered a part of the examination, and should not be transcribed. The regular exercises (a letter and a speech are considered as one exercise) will then be dictated at different rates of speed as follows: 80 words, 100 words, 120 words, and 140 words a minute. A rating of 70 per cent in speed will be given when the dictation is at the rate of 80 words a minute, 80 per cent for 100 words, 90 per cent for 120 words, and 100 per cent for 140 words a minute. The competitors will be permitted to enter the regular tests at as many different rates of speed as they may desire, but they will be required at the conclusion of the tests to select the one which they wish to transcribe and be considered in the rating. Examiners will give competitors sufficient time to make the selections. The test which they select will be the only one which they will be permitted to transcribe, and the notes of all other tests will be taken up by the examiner, together with the other papers of the stenography examination, but will not be considered in the rating. The notes of the exercises transcribed should be attached to sheet 4 when the competitor surrenders that sheet. The notes may be transcribed either in longhand or with the typewriter.

Junior stenographer examination.

SEC. 13. Time allowed, six hours, of which one and one-half hours are allowed for transcribing the stenographic notes. Application Form No. 2. Usual entrance salary, ₱600 per annum. The names of those that fail in the stenography test but obtain an eligible rating on the other subjects will be entered on the second grade register. Those who pass the examination have excellent prospects of appointment, as the demand for eligibles constantly exceeds the supply. Subjects of examination and relative weights on the scale of 100: Spelling (second grade), 5; arithmetic (second grade), 5; letter writing (second grade), 15; penmanship, 5; copying on typewriter, 10; stenography, 60.

Preceding the dictation in the stenography test a preliminary practice exercise is given at the rate of 50 words a minute, and the regular exercises are then dictated at the following rates of speed: 50 words, 65 words, and 80 words a minute. If a competitor takes the dictation at more than one rate of speed he will be allowed fifteen minutes in which to select the exercise that he will transcribe. A rating of 60 per cent in speed is given for dictation taken at the rate of 50 words a minute, 80 per cent for that at 65 words, and 100 per cent for that at 80 words. Competitors are expected to take the dictation entirely in stenographic notes.

Typewriter examination.

SEC. 14. Time allowed, six hours. Application Form No. 2. Typewriters who have not obtained a rating of at least 75 in the stenographer examination are not appointed in the United States to this service. The subjects and weights of the examination as given in the Philippine Islands are: Arithmetic (first grade), 5; penmanship, 5; letter writing (first grade), 15; copying from rough draft (first grade), 20; tabulating, 10; copying and spacing, 20; copying from plain copy, 10; writing from dictation, 15.

The technical subjects of the typewriter examination consist of copying from rough draft, tabulating, copying and spacing, copying from plain copy, and writing from dictation, in all of which accuracy and speed are considered in the ratings. The exercise in copying from rough draft of the first grade examination is given in this examination, the competitor being required to make a corrected copy of the exercise on the typewriter. In these technical subjects accuracy is given a weight of 3 and speed a weight of 2. The technical subjects are given in the English language only. The following indicates the general character of the technical exercises in this examination, other than those of copying from rough draft and from plain copy:

Tabulating.—Preliminary tests on the machine will not be permitted, but a rough draft of the table may be made with pencil or pen on scratch paper and copied with the typewriter on the accompanying blank sheet. The time consumed in making the rough draft will be included in the time allowed for the exercise. The competitor is furnished with a statement of facts and figures in narrative form which he is required to write, with the typewriter, in tabular form in a given number of columns, with proper headings, without abbreviations.

Copying and spacing.—The competitor is furnished with a photo-lithograph of a tabulated sheet which has been typewritten and so prepared that it may be reproduced on any style of typewriting machine.

Writing from dictation.—One of the examiners will dictate to each competitor separately, in groups of five or six words at a time, a passage of about 175 words, which the competitor will be required to write with the typewriter. As speed is an important element in this exercise, the examiner will read as rapidly as the competitor may desire and indicate. The examiner will give all the punctuation marks. The sheet will be surrendered immediately after the competitor has finished writing the exercise, no time being allowed for corrections.

Junior typewriter examination.

SEC. 15. Time allowed, six hours. Application Form No. 2. Entrance salary, usually ₱480 or ₱600. The names of competitors who fail on the typewriting subjects but obtain an eligible rating on the second grade subjects are entered on the second grade register. Those who pass the examination have excellent prospects of appointment, as the demand for eligibles constantly exceeds the supply. Subjects of examination and relative weights on the scale of 100: Spelling (second grade), 5; arithmetic (second grade), 5; letter writing (second grade), 5; penmanship, 5; copying from rough draft on typewriter (first grade), 15; copying from plain copy on typewriter, 25; writing from dictation on typewriter, 25; test in English and Spanish, 15. The dictation test consists of an exercise of about 175 words, and may be taken in either the English or the Spanish language. The test in English and Spanish consists of the translation of simple sentences from Spanish into English, and of interpreting from English into Spanish.

EXAMINATIONS FOR TRANSLATOR AND INTERPRETER.

The first and second grade, or basic, subjects of the translator and interpreter examinations are given in the English language only. The translations must be made without the aid of a dictionary and the competitor is required to translate as closely as the idiomatic usage of the two languages will permit.

Translator examination.

SEC. 16. Time allowed, eight hours. Application Form No. 2. Subjects of examination and relative weights on the scale of 100: Spelling (first grade), 5; arithmetic (first grade), 5; letter writing (first grade), 10; penmanship, 5; copying from rough draft (first grade), 5; translating from English into Spanish, 35; translating from Spanish into English, 35. The following selections indicate the general character of the translator examination:

Make a close translation of the following into idiomatic Spanish:

(a) Although the Chinese have introduced telegraphs to a considerable extent throughout a great portion of the Empire, they still cling affectionately to their postal system, which remains much the same as it was hundreds of years ago. The Government employs runners on foot or couriers on horseback, who are stationed at intervals on the roads leading to the various provinces. Each man takes the missive, or whatever it may be, to the next station, where another messenger is waiting to take it on the next stage, and so on. By this means enormous distances are covered in an incredibly short space of time. Marco Polo relates that dispatches are received in this way within twenty-four hours from places which it would take an ordinary traveler ten days to reach. If the Chinese wished to have a properly organized postal service they could easily establish one.

(b)

DEPARTMENT OF THE INTERIOR,
Washington, D. C., November 17, 1901.

DEAR SIR: I have the honor to acknowledge the receipt of your favor of the 5th instant, transmitting a copy of the Commercial Directory of the American Republics. One great need of the commercial interests of our country and of the neighboring Republics of Central and South America is mutual knowledge of the necessities and resources of each. It was for the purpose of seeking and publishing such international information that the Bureau of American Republics was organized at the close of the sessions of the International Conference held in Washington, 1889-90.

The abolition of the reciprocity treaties initiated by that conference has made the work of the Bureau less effective than it should have been. The volume you have issued contains much of interest and will, I am confident, be of great value to all commercial firms.

Yours very truly,

C. N. BLISS, Secretary.

Make a close translation of the following into idiomatic English:

(a) Sin ir tan lejos como los fanáticos para quienes Stendhal es una divinidad, ó al menos un profeta, un Mahómeto, por haber anunciado la ley santa de la energía; reconociendo las deficiencias de Stendhal, escritor ó inventor, hay que saludarle, sin embargo, como á maestro de las generaciones contemporáneas; declarar que en muchos respectos se adelantó á su época; estimar su gallardo desprecio de la fama en vida, y, atribuyéndole la más fresca y viviente de sus comparaciones, decir que también él fué como la deshojada rama de las minas de Salzburgo: obscuro al principio, sacáronle á la luz después, y en sucesivas cristalizaciones ha ido revistiéndose de pedrerías y de luces misteriosas. Es justo añadir que Stendhal entendía bien la inmensa, la inextricable complicación del "corazón humano," y por eso sentaba como base el estudio del carácter, que no es otra cosa que, en psicología, el individualismo. Por tal concepto, está plenamente dentro de la doctrina romántica Stendhal.

(b)

MANILA, 23 de Enero de 1903.

Sr. D. JULIÁN BALIGOT,
Dagupan, Pangasinán, I. F.

MI DISTINGUIDO AMIGO:

Antes de contestar á su carta de fecha 3 de los corrientes, permítame Vd. que emplee una frase muy gastada por el uso y aún por el abuso—pero que en esta ocasión resulta muy apropiada: "Midió Vd. á sus adversarios con la misma medida con que á Vd. le midieron"; pero esto no impide el que yo le diga que Vd. no ha estado grosero como ellos. Ni una frase, ni siquiera un equivoco, en todo su bien escrito artículo, puede denunciarle de tal. En todo él, campea la sátira culta, mordaz á veces, pero siempre oportuna. De ese modo los principios sustentados por Vd. quedaron á salvo de toda falacia y de la argumentación artificiosa con que suelen asecharle sus irreconciliables enemigos. En la política como en la literatura, es esencial ser oportunista.

He aquí, trazada á vuelo pluma, mi humilde parecer acerca de su última producción. Esperando, pues, que Vd. me perdonará por no haber dedicado el tiempo que requiere tan afia obra, me reitero de Vd.,

Su servidor y afectísimo amigo,

JUAN CANILLAS.

Junior translator examination.

SEC. 17. Time allowed, seven hours. Application Form No. 2. Subjects of examination and relative weights on the scale of 100: Spelling (second grade), 5; arithmetic (second grade), 5; letter writing (second grade), 10; penmanship, 5; copying from plain copy (second grade), 5; translating from English into Spanish, 35; translating from Spanish into English, 35.

The following selections indicate the general character of the tests in translation in this examination:

Make a close translation of the following into idiomatic Spanish:

(a) In previous reports reference has been made to the capability of Filipinos as tracers or copyists of drawings. This work is now being satisfactorily done by them in the bureaus of lands, coast and geodetic survey, and public works. In mechanical trades positions also Filipinos have shown special aptitude, as is being so amply demonstrated in the bureau of printing and in other bureaus. Filipinos have not been well trained in skilled occupations as artisans and mechanics. Mere theoretical teaching in the public schools is not likely to prepare adequately a sufficient number of Filipinos to meet in full the demands of industrial activity, unless such teaching is supplemented by a widely existent apprenticeship system, under which there may be practical application of knowledge gained in schools.

(b) The farmer makes practical application of a knowledge of root systems in the operations of soil preparation. If preparing to plant an orchard of orange trees, or a plantation of cacao, he digs a hole many times larger and deeper than is required by the young tree at the time of planting. And, in order to secure greater permeability, it is now common, after the hole is dug, to explode a charge of powder in the bottom, still more deeply to tear and rend the earth asunder.

Make a close translation of the following into idiomatic English:

(a) A los diez años daba yo malas muestras de mi persona, y mis travesuras eran menos inocentes que las de los otros niños. En los tiempos de los nidos, corría los campos, trepaba á la copa de los más altos álamos, escalaba las puntas de los riscos cubiertos de hiedra, penetraba en los bosques más sombríos; ni perdonaba, como los otros chicos, á la alegre golondrina que habitaba en el hogar del labrador; antes bien, asechaba en que éstos acudían á sus labores para abrir sus ventanas ó sus puertas, coger los pajarillos ó quebrar los huevos y destruir el nido. Las mujeres me trataban de sacrilego y sólo toleraban estos atentados por consideración á la bondad y á las virtudes de mi padre.

(b)

Sr. D. JOHN SMITH,
Hotel de Oriente, Manila, I. F.
Muy Sr. Mío:

Por referencias hechas por el Sr. Alvarez, me he enterado de que Vd., hablando de la agricultura del país, ha sugerido á los cosecheros de esta hermosa región que fué un tiempo productor del mejor café del mundo, la conveniencia de sustituir la siembra del café con la del té ó *cha*, como solemos llamarlo en el país, probándolo con el ejemplo práctico y positivo suministrado por la India.

Teniendo por una parte la recomendación del Sr. Alvarez, y por otra el afán que Vd. siempre ha demostrado por el progreso y bienestar de este país, me permito dirigirle la presente, rogándole me indique los procedimientos y recursos que han adoptado los de la India para introducir en su país la siembra de esta planta genuinamente china.

Dándole las gracias y esperando su contestación, me quedo su seguro servidor,

JOSÉ LUZ.

Interpreter examination.

SEC. 18. Application Form No. 2. The subjects and weights of the interpreter examination are the same as those for the translator examination (see sec. 16), except that the seventh and eighth subjects consist of interpreting instead of translating. Time allowed, six hours. This examination is given only to obtain eligibles for interpreter positions and does not qualify for appointment to clerical positions. The tests in interpreting include questions and answers on different subjects in English, aggregating about 300 words, which are to be interpreted into Spanish, and similar exercises in Spanish, which are to be interpreted into English. No competitor will be given any credit on the interpreting tests of this examination if his rating on the subjects of the first grade examination is less than 60 per cent. The first grade subjects are given in English only. The entrance salary for this position varies according to the requirements of the vacancy to be filled and the ability of the eligibles.

CLERK OF COURT EXAMINATIONS.

SEC. 19. Application Form No. 2. This examination is given in either English or Spanish as the applicants elect, but they should possess a knowledge of both the Spanish and English languages. Six hours are allowed for the first seven subjects, and two and one-half hours additional for the subject of translating when taken; all of which subjects are given on the same day. The eighth subject will not be given on the same day as the others. For this subject three hours will be allowed. The entrance salary varies according to the requirements of the vacancy to be filled and the ability of the eligibles.

Clerk of court, central, examination.

Subjects of examination and relative weights on the scale of 100: Spelling (first grade), 7.5; arithmetic (first grade), 7.5; letter writing (first grade), 10; penmanship, 10; copying from rough draft (first grade), 10; history and government of the United States, and geography (first grade), 5; practical questions, 30; tests in translating (subjects 7 and 8 of translator examination), 20. Appointment as a result of this examination is made to the positions of clerk of court, assistant clerk of court, and deputy clerk of court in Manila or the provinces. The following are specimen practical questions in this examination:

1. What are the duties of the clerk in general? 2. What is a docket? 3. What must the book of *final record* contain? 4. (a) What is a subpoena? (b) Who may issue a subpoena? (c) What is subpoena *duces tecum*? 5. What must the clerk do when a defendant excepts to the plaintiff's bond in an action for *manual delivery of personal property*? 6. When and how are the costs taxed by the clerk? 7. What are the powers of clerks of Courts of First Instance with reference to administering oaths? 8. What fee may lawfully be charged by the clerk of the Supreme Court for filing a bill of exceptions or an appeal, and for other duties performed by him in connection therewith? 9. What entries are to be made by the clerk in the book of final record upon the termination of an action? 10. Define the following terms: (a) *Injunction*. (b) *Rehearing*. (c) *Adjournment* as distinguished from *continuance*. (d) *Deposition* as distinguished from *affidavit*.

Clerk of court, provincial, examination.

This examination is the same as that of clerk of court, central, except that the translating tests are omitted and the relative weights of the subjects are as follows: Spelling, 15; arithmetic, 15; letter writing, 15; penmanship, 10; copying from rough draft, 10; history and government of the United States, and geography, 5; practical questions, 30. Appointment as a result of this examination can be made to the positions of clerk of court, assistant clerk of court, and deputy clerk of court in the provinces only.

Civil engineer examination.

SEC. 20. Application Forms Nos. 2 and 47. The subjects and relative weights of the examination are: Pure and applied mathematics, including calculus, 20; theory and practice of surveying, including the use and care of instruments, 25; design and construction, 25; education and experience, 30. The first subject is given on the first day of the examination, for which six hours are allowed; the second and third subjects are given on the second day, and for these subjects nine hours are allowed. In addition to salary, the expenses of travel, subsistence, and quarters while absent from station are borne by the Government. The Government desires the services of technically trained, capable, and experienced engineers. Roads must be repaired and extended, and bridges constructed, for the transportation of agricultural products to the markets and for the development of mail routes. Provision is made for river and harbor improvements, and for the establishment of irrigation systems. The following are specimen questions in this examination:

Pure and applied mathematics.—(Competitors will answer five, and only five, of these questions.) 1. Given $a=77.01$, $b=216.45$, $A=35^{\circ} 36' 20''$; find the other parts of the triangle. 2. The length of a rectangular grass plat exceeds three times its breadth by 1 ft., and its area is 4,840 sq. ft. It is surrounded by a walk whose area is 3,222 sq. ft. Determine the width of the walk. 3. If the coefficient of linear expansion for iron per 1° C. is equal to .000012, what will be the length of a bar that is 55 ft. long at 60° F. when the temperature of the bar is 75° F., both ends being free? If the ends are fixed, what will be the amount of stress in the bar caused by this rise in temperature, taking E equal to 30,000,000? 4. A rectangular beam, b inches broad, d inches deep, and L feet clear span, can just bear safely a concentrated center load $=W$. What load can it just safely bear at a point halfway between center and point of support; and if the load be the same in both cases, how much may the depth be diminished in the second case so that the beam may be equally strong? 5. Calculate the discharge in cubic feet per hour through an opening, 4 inches in diameter, in a vertical plane partition under a constant pressure of 40 lbs. per sq. in. Assume ratio of actual to theoretical velocity

as .975, and ratio of contracted vein to that of opening as .65. ($g=32.2$ ft. per sec.)

6. Examine for maxima and minima $y=x^5-5x^4+5x^3-1$.

Theory and practice of surveying, including the use and care of instruments. (Competitors will answer six, and only six, of the following questions.) 1. State clearly and explain the method of making the bubble adjustment in the wye level. 2. In measuring the horizontal angle between two points at different elevations, with a transit, which adjustments are essential to a correct reading, and how may the angle be measured in order to eliminate the effects of errors in these adjustments? Give, in clear terms, the reasons for your answer. 3. How is a transit prepared for stadia work, and how is the rod graduated? State clearly and describe briefly the theory on which stadia measurement is based. 4. Describe the construction of one, and only one, of the following: The plane table, the planimeter, the slide rule. State the use to which it is put. 5. (a) Describe how you would lay out a $1\frac{1}{2}^\circ$ railroad curve beginning at station 124+40 and ending at station 129+35, and also how you would set station stakes 130, 131, etc. (b) State clearly the difference between the methods of direction and of repetition in measuring horizontal angles. (c) If you had to produce a straight line with a transit, state how you would proceed in order to obtain the best possible result.

In the remaining questions assume a piece of land surveyed, having five sides, one corner inaccessible to transit, and one side with obstructions to measurement: 6. (a) Give sample page of field notes. (b) Describe the method of determining the true azimuth of any one of the boundary lines. 7. Answer either one of the following two questions: (a) Compute by the method of latitude and departures the area of the land surveyed. (b) Compute the coordinates of the boundary line with respect to any lines of reference.

Design and construction.—1. Answer two of the three questions that immediately follow: (a) Make a complete pen-and-ink sketch cross-section of one half of a 60-foot city street for heavy traffic, with 12-foot sidewalk. Show clearly the method of construction and of drainage, and show position of sewers and water and gas-main pipes. Give dimensions necessary to a clear understanding of your sketch. (b) Describe in detail a good method of giving lines and grades for large-size water pipes. (c) State in order and describe briefly the steps you would take to measure the discharge of a nontidal stream not less than 200 feet wide, and of average depth between 10 and 20 feet. 2. Answer two of the three questions that immediately follow: (a) Name the defects and conditions that affect the durability or strength of timber. State the cause of each, and if preventable name a remedy. (b) Define first-class fat lime. State the precautions to be observed in the selection of rock, in burning, and in subsequent handling, to insure best quality on delivery. (c) Write a short specification for the materials for concrete to be used in heavy foundations, and give the quantities of each per 1,000 cubic yards in place. Specify particularly the manner of mixing, laying, and ramming. 3. Answer two of the three questions that immediately follow: (a) A steel-built column rests upon a foundation of concrete and steel beams, with granite cap. The total weight resting on the stiff clay subsoil is 200 tons. Design the foundation so that the pressure on the clay shall be practically $1\frac{1}{2}$ tons, and on the concrete not over 10 tons, per square foot. Give neat pen-and-ink sketches of plan and sectional elevation of foundation, showing base and part of column, and give principal dimensions. (b) Make a pen-and-ink sketch cross-section of a surcharged retaining wall 20 feet high, retaining ordinary earth. Give all dimensions and method of determining them. If the wall is built of ashlar face and coursed rubble backing, give the quantities per hundred lineal feet of wall of all materials required. (c) Name and describe briefly three common methods of driving piles, and state under what conditions each may be adopted. Describe briefly the testing and estimation of the bearing capacity of a driven pile.

Surveyor examination.

SEC. 21. Application Forms Nos. 2 and 47. The surveyor examination is of the same general character as the civil engineer examination, except that questions relating to calculus, mechanics, materials of construction, and design and construction are omitted. In lieu of the subject "Design and construction" is substituted the subject "Drawing and mapping (including projections)." In addition to salary, the expenses of travel, subsistence, and quarters while absent from station are borne by the Government. The subjects and relative weights of the examination are: Pure and applied mathematics, 15; theory and practice of surveying, including the use and care of instruments, 40; drawing and mapping, 20; education and experience, 25. The first subject is given on the first day of the examination, for which six hours are allowed; the second and third subjects are given on the second day of the examination, and for these subjects nine hours are allowed.

Junior draftsman examination.

SEC. 22. Time allowed, two days of six hours each. Application Form No. 2. Entrance salary, usually \$480. Subjects of examination and relative weights on the scale of 100: Letter writing (second grade), 10; penmanship, 10; drafting, 60; experience and training, 20. This examination is a general one from which eligibles may be obtained for certification to fill vacancies in the various Bureaus; therefore, applicants should state

the kind of drafting with which they are familiar, whether mechanical or architectural, such as drawing and designing, or topographical, such as map and chart work. This information will determine the character of the test for each applicant in the third subject, drafting. Experience and training are rated on the evidence contained in Form No. 2.

Junior technical examinations.

SEC. 23. Application Form No. 2. The first and second subjects are given on the first day; time allowed, six hours. The remaining subjects are given on the second day; time allowed, eight hours. These examinations are intended to give Filipinos opportunity to qualify for appointment to the positions of junior civil engineer, junior mechanical engineer, and junior surveyor. Subjects of examination and relative weights on the scale of 100: Letter writing, 10; arithmetic and algebra, 25; plane geometry, plane trigonometry, and use of logarithms, 35; practical questions, 30.

The first three subjects are common to all the examinations. For the position of junior civil engineer the fourth subject consists of questions on surveying and the use and care of field and office instruments and of tests in drafting; for the position of junior mechanical engineer the fourth subject consists of mechanical drawing and questions on the principles of mechanism, on blacksmithing, woodworking, machines, engines, etc.; for the position of junior surveyor the fourth subject consists of mapping and survey computations. The following paragraph applies to student surveyors in the Bureau of Lands taking this examination for appointment as junior surveyors:

Minimum age limit, eighteen years. Applicants must have the education obtained by completion of the second year in the Insular Normal School, a high school, or other institution with an equivalent course, and must have served the Government at least one year as apprentice surveyor. Such apprentice service may be rendered during afternoons, Saturdays, and school vacations, and for this service payment will be made at the rate of ₱240 per annum for the first year. After having served one year as apprentice surveyor and passed the junior surveyor examination they may be given appointment as junior surveyors at ₱360 per annum without leave privileges, this appointment to continue during the last year of their school course. On the completion of their two years' school course they will receive regular appointment with leave privileges as junior surveyors at ₱600 per annum, with subsistence while in the field. Promotion of one class each year during contract period will usually be made if services are satisfactory. The certificate of physical examination outlined on Form No. 2 must be furnished. Each student who qualifies for appointment shall, before receiving such appointment as junior surveyor, be required to sign an agreement, approved by his parents or guardian if he be under twenty-one years of age, to the effect that he will remain with the Bureau of Lands for the term of four years from date of appointment as junior surveyor, and perform such duties as may be prescribed by the Director of Lands, unless sooner released by the Director of Lands. Any student separating himself from the service during the term of his contract, without the approval of the Secretary of the Interior, shall be debarred thereafter from holding any position in the Philippine Civil Service. (See Acts Nos. 1491 and 1679.) The following are specimen questions in the first three subjects:

Letter writing.—Write a letter of not less than 150 words on one of the following subjects: 1. Advantages of an outdoor occupation over one within doors. 2. Your reasons for choosing your profession.

Arithmetic and algebra.—1. A rectangular piece of land is 1 kilometer, 2 dekameters in length and 3½ hektometers in breadth. If $\frac{1}{4}$ of it is worthless and the rest is valued at ₱12 per hectare, what is the value of the land? 2. A surveyor spent ₱56.64 for equipment, which sum was just 16 per cent of his capital. His other expenses were $\frac{3}{4}$ per cent of his capital. How much money had he left? 3. A solid wall 50 feet long, 3 feet broad, and 6 feet high is built of bricks and mortar. The bricks are each 8 inches long, 4 inches broad, and 2 inches thick. Thirty per cent of the wall is mortar. How many bricks does it contain? 4. A square body of land contains 103,978,809 square yards. If a surveyor can run 3,399 yards of boundary line in a day, how many days will it take for him to run a line around the entire body of land? 5. Find a fraction such that if 1 be added to its denominator it becomes equal to $\frac{1}{2}$; and if 2 be added to its numerator it becomes equal to $\frac{1}{8}$. 6. Solve:

$$\begin{cases} 5x - y = 17 \\ xy = 12 \end{cases} \quad 7. \text{ Simplify: } \left(\frac{1-x^2}{1-x^3} \right) \div \left(\frac{(1-x)^3}{1-3x^2+2x^3} \right) \quad 8. \text{ A piece of land 50 feet long and}$$

34 feet broad has around it a path of uniform width; if the area of the path is 540 square feet, find its width.

Plane geometry, plane trigonometry, and the use of logarithms.—1. Demonstrate: The diagonals of a parallelogram bisect each other. 2. With the aid of a compass, divide a given straight line into five equal parts. Explain and prove. 3. What is the locus of the center of a circumference tangent to both sides of an angle? Why? 4. Find the area of an equilateral triangle the perimeter of which measures 36 feet. 5. From a point, B, at the foot of a mountain the elevation of the top, A, is 38°. From a point one mile distant from the foot of the mountain the elevation of the top is 18° 15'. Find the height of the mountain in feet. 6. Solve the triangle, having given the sides $a=548.76$, $b=662.94$, $c=804.6$. 7. Find the area of a parallelogram if its diagonals are 2.27 and 3.48 and intersect each other at an angle of 36° 48' 13". 8. Explain how in trigonometry the functions of angles in the third quadrant may be changed to the functions of angles in the first quadrant with no changes in values. Illustrate by writing the corresponding functions of angles of the first quadrant of the $\sin 210^\circ$, $\cos 210^\circ$, $\tan 210^\circ$, $\cot 210^\circ$, $\sec 210^\circ$, $\csc 210^\circ$.

Assistant computer examination.

SEC. 24. Time allowed, nine hours. Application Form No. 2. Subjects of examination and relative weights on the scale of 100: Second grade English or Spanish examination, 30; practical questions, 70. No competitor will be given credit for his practical questions unless he obtains an average of at least 70 per cent in the second grade subjects. The salary limits are according to those prescribed for the second grade English or Spanish basis examination.

Examinations for mechanics, electricians, inspectors, etc.

SEC. 25. Application Forms 2 and 35. Examinations are held for these and similar positions, the performance of the duties of which requires skill, special training, and, in many cases, executive capacity. Subjects of examination and relative weights on the scale of 100: Spelling, arithmetic, and letter writing (second or third grade), and penmanship, 25; appropriate practical questions, 40; experience and training, 35. The practical questions vary according to the class and character of the positions and are adapted to the duties required to be performed in each position. Applicants for the position of sanitary inspector should be graduates of a training school or have served in the hospital corps of the United States Army or Navy.

Veterinarian examination.

SEC. 26. Time allowed, seven hours. Application Forms Nos. 2 and 47. In addition to salary veterinarians receive the expenses of travel, subsistence, and quarters while absent from station. Appointees as a result of this examination must be graduates of reputable veterinary colleges. Subjects of examination and relative weights on the scale of 100: Discussion of a topic relating to veterinary medicine, 10; veterinary anatomy and physiology, 20; veterinary pathology, 20; veterinary practice and animal husbandry, 40; experience and training, 10. The subject of experience and training is rated on the evidence submitted by the applicant with his application. The following are specimen questions in this examination:

Discussion.—In a paper of not less than 250 words discuss the bacteriology of any two important tropical diseases of domesticated animals. (This exercise is designed to test the competitor's skill in composition as well as his knowledge of the subject matter.)

Veterinary anatomy and physiology.—1. Describe in detail the general appearance of healthy live animals. 2. Name and describe the principal differences between the alimentary canal of a horse and that of a cow. 3. Describe the appearance (a) of normal mucous membrane and (b) of normal mammalian blood. 4. Describe the functions of the liver. 5. State the functional relations between the kidneys and the skin.

Veterinary pathology.—1. What is putrefaction? What is its cause, and by what conditions is it favored? 2. Describe (a) septicemia and (b) pyemia, giving causes, pathology, and the diseases of domesticated animals with which each may be associated. 3. Define edema, jaundice, diapedesis, suppuration, and aneurism. 4. State fully the pathologic lesions characteristic of anthrax. 5. What two important diseases of cattle are caused by fungi? Give the pathology characteristic of each.

Veterinary practice and animal husbandry.—1. Give the causes, symptoms, and treatment of laminitis. 2. What is the cause of tetanus? Describe characteristic symptoms and give treatment. 3. Describe the mallein test, giving conditions under which you would not employ the test and conclusions on a 2.5° F. rise of temperature. 4. Describe rinderpest and give the treatment and measures necessary for the suppression of this disease. 5. Describe the symptoms of each of the following-named diseases: *Maladie du coit* or *dourine*, influenza, and strangles. NOTE.—Under this subject additional questions are given on the breeding and care of domesticated animals.

Ranger examination.

SEC. 27. Time allowed, six hours. Application Form No. 2. Usual entrance salary, \$480 with subsistence while absent from station. Age limits of applicants, 18 to 30 years. Applicants must be unmarried. The higher classes are filled by promotion. Subjects of examination and relative

weights on the scale of 100: Spelling (second grade), 5; arithmetic, 25; letter writing (second grade), 10; penmanship, 10; copying from plain copy (second grade), 5; practical questions, 25; experience and training, 20. The following are specimen questions in the second and sixth subjects:

Arithmetic.—1. Add the following numbers: 7,820,140; 616,487; 18,021,762; 5,329,456; 5,647,893; 432,890; 23,578,932; and 45,004. From the sum of these numbers subtract 8,641,762. 2. Multiply 794.4 by 4508, and divide the product by 49.65. 3. How many pounds will a banca 16 meters long, $1\frac{1}{2}$ meters wide, and $1\frac{1}{2}$ meters deep contain when full of wood weighing 1,800 pounds per cubic meter? 4. How many cubic feet are there in a piece of wood $1\frac{1}{2}$ meters in circumference and 9 meters long? (1 cubic meter=35.3 cubic feet.) 5. A piece of wood 1 meter and 8 centimeters wide and $\frac{3}{4}$ meter thick contains 12.15 cubic meters. What is its length?

Practical questions.—1. Explain the principal objects of forestry. 2. Define the following terms: Cahiñin, homestead, commercial forest, communal forest. 3. When a ranger inspects a cutting for the first time, what must his report contain? 4. In what group does each of the following trees belong: Lauan, apitong, ipil, guiño, supa? 5. What are the main points to be noted in describing a tree?

Scientific assistant examination—Bureau of Science, Bureau of Agriculture, and Bureau of Forestry.

SEC. 28. Application Forms Nos. 2 and 47. Applicants for regular appointment to technical positions in these Bureaus should be college graduates and in addition specially trained and prepared for the field of work for which application is made. Opportunity is also offered undergraduates to secure regular appointment in the service. Subjects of examination and relative weights on the scale of 100: Education and special qualifications, 70; thesis or publications, 30.

EXAMINATIONS FOR THE TEACHING SERVICE.

Teacher examination.

SEC. 29. Time allowed, two days of seven hours each, the first five subjects being given on the first day and the remaining subjects on the second day. Application Forms Nos. 2 and 47. Vacancies in the higher positions in the teaching service are filled by promotion from the lower classes. Minimum and maximum age limitations, 20 and 40 years. The teacher examination is held at intervals in the United States by the United States Civil Service Commission. Subjects of examination and relative weights on the scale of 100: Thesis, 12.5; penmanship, 5; physiology and hygiene, 7.5; geography, 10; English, 12.5; science of teaching, 10; arithmetic, 12.5; nature study and drawing, 7.5; history and civil government of the United States, 12.5; experience and training, 10. The following are specimen questions and tests in this examination:

Thesis.—Write a thesis of from 200 to 300 words on one, and *only one*, of the following topics: 1. The importance of a good system of public schools in the Philippine Islands. 2. The advantages derived by the civil service from the merit system of appointments. [In rating the thesis, errors in spelling, capitalization, punctuation, syntax, and style, and its adherence to and treatment of the subject given, will be considered, and its value in the judgment of the examiners rated on a scale of 100 per cent.]

Physiology and hygiene.—1. Show by a drawing the natural curvature of the human spinal column. What purpose does this curvature serve? 2. Explain how exercise enlarges and strengthens the muscles. Mention a form of exercise well fitted to develop the lungs. 3. Show by a diagram or otherwise the course of the blood from the time it leaves the right auricle till its return to the right auricle. 4. Describe the lungs and give their functions. 5. State the functions of the skin and show their hygienic importance. 6. Describe the physical effects of the excessive use of alcoholic beverages. 7. State the value of physical exercise to persons living in the Tropics, and show how it is conducive to physical well-being. 8. Describe the dietary conducive to the good health of persons living in a hot climate. 9. Describe briefly the digestive process. 10. State the value of habits of cleanliness.

Geography.—The following questions have a weight of ten each: 1. Name, in order, the bodies of water a vessel would traverse in making the voyage by the most direct route from Philadelphia to Manila. 2. Name two of the chief exports of each of the following countries: China, France, Russia, Japan, Argentine Republic, Mexico, Italy. 3. State where each of the following rivers rises, and in what direction and into what body of water it flows: Colorado, Euphrates, Rhine, Nile, Lena. 4. (a) Name five (and only five) of the six most populous States of the United States. (b) Name three (and only

three) of the four States smallest in area in the United States. (c) Name two (and only two) of the three least populous States of the United States. The following questions have a weight of twenty each: 5. State clearly and concisely how you would develop primary concepts of the action of the elements in the formation and wearing away of land surfaces. 6. What are ocean currents? Name three of the principal ocean currents and describe the effect produced by each on the climate of adjacent countries. 7. Compare Porto Rico and the Philippine Islands as to (1) area, (2) population, (3) natural resources, and (4) political status.

English.—1. Distinguish between the teaching of grammar and the teaching of rhetoric. 2. Write five sentences containing common errors of speech, and explain the corrections as to a class. 3. Analyze the following sentence: "*Though he slay me, yet will I trust in him.*" 4. Parse the italicized words in the foregoing sentence. 5. State the various grammatical uses of each of the following words: *but, as, while, that, what*. 6. Write five rules governing the spelling of English words. 7. Illustrate the correct use of *on, upon, in, and into* in sentences. 8. Write one sentence containing relative pronouns in the nominative, the possessive, and the objective cases. 9. Define a subordinate clause. Write one sentence using in it an adjective clause and an adverbial clause. 10. Write sentences containing (a) a compound relative pronoun; (b) an impersonal verb; (c) a noun clause used as a subject; (d) a participial phrase used as the object of a preposition; (e) an infinitive phrase modifying a noun.

Science of teaching.—State definitely and in order the steps to be taken in (a) opening, (b) maintaining, and (c) closing a recitation in reading in an intermediate grade. 2. Name the intellectual faculties in the order of their development, and show that the best arranged courses of study conform to this order. 3. Under what conditions and by whom was the kindergarten originated? 4. What are the strongest incentives to study to pupils in the lower grades? Name at least three. 5. How may discipline be best maintained in the primary grades? Answer definitely. 6. Show how a knowledge of psychology may aid a teacher in primary instruction. 7. What are the requisites of a good question? Explain fully. 8. Discuss briefly the educational work of any two of the following: Jean Jacques Rousseau, Ignatius Loyola, William T. Harris, Thomas Arnold, John Frederick Herbart.

Arithmetic.—1. "If the numerator and denominator of a fraction be both divided by the same number, the value of the fraction is not altered." Using the inductive method, show by questions and answers how you would develop and obtain a statement of the above principle from your pupils. 2. The longitude of Stockholm is $18^{\circ} 3' 30''$ E. When it is midnight there, it is 5 h. 51 m. $52\frac{1}{2}$ sec. p. m. at New York; what is the longitude of New York from Greenwich? 3. How much less will the fencing of $2\frac{1}{2}$ acres in the square form cost than in the form of a rectangle whose breadth is $\frac{1}{2}$ the length, the price being P2.40 a yard? 4. A man buys an estate for P59,103 on 30 days' credit. By paying cash he could have bought it for 2 per cent less. If he had written a note due in 30 days without interest, discounted it at the bank, and paid cash for the estate, how much less money would he have had to pay at the end of the 30 days? (Discount is reckoned at 6 per cent per annum without grace. 360 days=1 year.) 5. The inside dimensions of an uncovered rectangular stone cell are: Length, 1 dcm.; width, 9 m.; height, 2 m. 8 dcm. The walls are 7 dcm. 5 cm. thick and the base or floor of masonry is 4 dcm. thick. What did it cost to build the above at P3.35 per cu. m.?

Nature study and drawing.—The competitor will be required to discuss in an essay of 175 to 200 words some phase of the subject of nature study. For the drawing the competitor will be instructed to make a sketch, and may be asked questions on the teaching of drawing.

History and civil government of the United States.—The following questions have a weight of ten each: 1. State briefly the financial policy of Hamilton immediately after the adoption of the Constitution. 2. Show the importance in the Civil War of either one of the following: (a) Battle of Antietam, (b) capture of Vicksburg. 3. What was the "Embargo Act"? For what purpose was it passed? What were its results? 4. Mention five important powers given the Federal Government and denied the States by the Constitution. 5. Give, in substance, the provision of the law governing the presidential succession. In whose administration was the law enacted? 6. What judicial power has the Senate? Answer fully. The following questions have a weight of twenty each. 7. Give an account of the settlement of New Netherlands, and discuss the permanency of the Dutch institutions. How did the English finally come into possession of this settlement? 8. Write between 200 and 300 words on the life, character, and public services of Benjamin Franklin or of Andrew Jackson. (Write on only one.)

Senior teacher of agriculture, senior teacher of domestic science, and senior industrial teacher examinations.

SEC. 30. Time allowed, eight hours. Application Forms Nos. 2 and 47. For subjects, weights, and dates of these examinations, applicants in the United States should apply to the United States Civil Service Commission. The subjects and weights of the examinations as given in the Philippines are: Thesis on technical subject, 15; arithmetic, 10; practical questions, 50; education and experience, 25. The practical questions in the several examinations cover the following fields:

Teacher of agriculture: Farm implements, appliances, and machinery; farm management; horticulture and the care of orchards; elementary forestry; animal and poultry husbandry, and the care of animals; tropical diseases of animals; soils; crops; fertilizers; irrigation; agricultural botany, physics, and chemistry.

Teacher of domestic science: Household management; cooking; dietaries; nutritive values and chemistry of foods; laundering; cutting, fitting and sewing; care of children and treatment of children's diseases; home nursing and emergency treatment; tropical sanitation and elementary physiology and hygiene.

Industrial teacher: Mechanical drawing; plans and specifications of articles commonly manufactured in the public schools; wood working, including painting and hard wood finishing; concrete construction; iron working; machinery and tools; weaving; and other native industries. (Considerable choice will be given in the questions to be answered so that a person need not be familiar with all of the ground covered above in order to pass the examination; a person not familiar with wood working, for instance, may omit the questions on that specialty.)

The third subject also includes questions on the methods of teaching that subject.

Junior teacher examination.

SEC. 31. Time allowed, two days of seven hours each, the first six subjects being given on the first day of the examination and the remaining subjects on the second day. Application Form No. 2. Entrance salary usually does not exceed ₱600 in Manila and ₱480 in the provinces. In view of the requirements of the service this examination is given in English only. Subjects of examination and relative weights on the scale of 100: Spelling, 5; arithmetic, 15; composition, 15; penmanship, 5; geography, 10; English, 15; history of the United States and the Philippine Islands, 10; physiology and hygiene, 10; Philippine civil government and school administration, 5; agriculture and other industries (for male competitors) or domestic science (for female competitors), 10. The following are specimen questions in the last six subjects of this examination:

Geography.—1. Name five great rivers and the body of water into which each empties. 2. What is the Tropic of Capricorn? What continents does it cross? 3. Name five of the best known plant products of the temperate zones. 4. Name great cities of the United States as follows: One on the Atlantic Ocean or on an arm of that ocean, one on the Great Lakes, one on the Gulf of Mexico, one on the Mississippi River, one on the Pacific Ocean. 5. Name the capitals of the following States: Ohio, Pennsylvania, Wisconsin, Kentucky, Montana. 6. In what country of Europe is each of the following cities: Christiania, Copenhagen, Marseilles, Bremen, Zurich? 7. Name ten provinces on the Island of Luzon. Name five other provinces of the Philippines. 8. Give the capitals of the provinces named in answer to question 7. 9. Name ten of the best known plants and fruits that grow in the Philippine Islands. 10. Locate definitely the following: Laoag, Siquiljor Island, Cotabato, Mount Mayon, San Bernardino Strait, Cagayan River.

English.—1. Give the principal parts of the following verbs: *Have, sing, come, go, talk*. 2. (a) Define the following: Simple sentence, compound sentence, complex sentence. (b) Illustrate each by a sentence. 3. Name the part of speech of each word in the following sentence: "Oh, John! Take the big dog away from his master and tie him." 4. Write the plural of the following words: *Man, child, day, box, fly, valley, knife, key, I, he*. 5. (a) Give the comparison of the following adjectives: *Large, good, beautiful*. (b) Write a sentence containing the superlative form of *happy*. (c) Write an interrogative sentence containing the word *Rizal* in the possessive form. 6. Give the possessive singular and possessive plural of the following words: *Elephant, farm, country, fox, woman*. 7. Put the following words into good, clear sentences: *Country, there, their, our, rainy*. 8. Write sentences containing an infinitive used as (a) a noun, (b) an adjective, (c) an adverb. 9. Write sentences using correctly the following punctuation marks: Period, comma, interrogation point, exclamation point, and quotation marks. 10. Explain why the italicized words begin with capital letters: *When I saw John in Manila, I said to him, "Are you coming to see me soon?"*

History of the United States and the Philippine Islands.—1. At the time of Columbus what was the general opinion as to the size and shape of the earth? Describe the first voyage of Columbus to America. 2. What three important European nations were the principal ones in colonizing America? State in what parts of America each settled. 3. What were the causes that made the American colonists declare themselves independent of Great Britain? When was independence declared? 4. Who was the President of the United States during the Civil War? Give a short account of his life. 5. Name one important cause of each of the following wars in which the United States took part: War with England in 1812, Mexican War, Spanish-American War. 6. Give a description of Legaspi's work in the Philippines. 7. Write a short account of the Philippine insurrection of 1872. 8. Who was each of the following: Salcedo, Limahong, Primo de Rivera?

Physiology and hygiene.—1. Explain how the blood is kept from flowing backwards in the veins. 2. Why is it unhealthful to take violent exercise directly after eating? 3. Give three reasons why the skin should be kept clean. 4. How is the heat of the body regulated? 5. Why is an abundance of pure air necessary to good health? 6. Describe the spinal column. 7. How does oxygen reach all parts of the body? 8. What are the functions of the kidneys?

Philippine civil government and school administration.—1. What officers compose the provincial board? 2. (a) What are the duties of the Insular Auditor? (b) Name the officers of a municipality. 3. (a) How are municipal teachers appointed? (b) Who arranges and immediately oversees the work of a municipal teacher? 4. On organizing a new school of fifty pupils who had not before attended school what subjects should be taught? 5. Discuss the first steps in the teaching of one of these subjects to such a class.

Agriculture and other industries.—1. What action have the sun and wind on soil with reference to its use for crops? 2. What do plants in general take from the soil? What do they take from the air? 3. Name at least three common enemies of the agricultural plants of your district. State how they injure or destroy the plants; also what should be done to get rid of them. 4. What benefits would result from a modern course of training

in blacksmithing for young men? 5. Name three common dyewoods or plants used for dyeing in the Philippines and describe one method of dyeing in use in your locality. 6. (a) Make, on the paper supplied, a free-hand drawing of the group provided for the purpose. (b) Outline the first lesson to a class of beginners in free-hand drawing.

Domestic science.—1. Discuss fully the proper methods of teaching school-girls practical housekeeping. 2. Give an outline of routine work in systematic housekeeping, for one week. (The competitor may choose the season, month, etc. This is a test for thoroughness of work, economy of labor and time, and care in details.) 3. Describe a method of preparing and cooking each of four kinds of native food. 4. Give the entire process of laundering calico. 5. What materials should be used in teaching elementary sewing?

Junior teacher of agriculture, junior teacher of domestic science, junior teacher of iron working, junior teacher of weaving, and junior teacher of wood working examinations.

SEC. 32. Time allowed, eight hours. Application Form No. 2. In view of the requirements of the service, these examinations are given in English only. Subjects of examinations and relative weights on the scale of 100: Arithmetic, 15; composition, 15; practical questions, 50; experience, 20. The following are specimens of the practical questions:

Agriculture.—(Two questions may be omitted; but competitors are not allowed to omit both of the last two.) 1. Give proper directions in detail for the planting of a hectare of corn including the preparation of the ground and the selection of the seed. 2. Describe fully the proper care of a crop of rice from the beginning of the harvest until after hulling. Describe fully each of the processes involved. 3. Explain in detail the proper method of laying out small irrigation ditches on rice land that is not perfectly level. 4. Explain fully the process of grafting, giving reasons for each step. 5. Discuss the various means of preventing the impoverishing of the soil. Full treatment with reasons is required. 6. Give directions in detail for the feeding and care of a carabao used daily in heavy farm work. 7. Give full directions for the erection of a permanent shelter large enough for two horses and two carabaos with room for carromato, farm implements, etc. 8. Name at least three diseases which attack farm animals in the Philippines. State what animals are attacked by each, the preventive measures that should be adopted by the farmer against each, and the steps to be taken in case the diseases mentioned are contracted. 9. Explain the principles of (a) the siphon and (b) the pump. 10. Represent by diagram a system of pulleys by means of which, if there were no friction, a weight of one pound would just balance a weight of four pounds.

Domestic science.—1. Give full reasons why abundant water should be taken into the body. 2. State briefly what instruction you would give for the prevention of the spread of tuberculosis. 3. Name two foods that contain in large quantities the properties particularly required for the perfect formation of bone. 4. Describe the diet suitable for (a) a person sick with fever, (b) a baby one year old. 5. Should the following be put to cook in cold or boiling water: (a) starchy vegetables, (b) meat for soup stock, (c) meat in which it is desired to retain the flavor? Explain why. 6. Describe the instruction that should be given regarding the frying of foods. Include precautions to be observed. 7. Indicate clearly what instruction should be given in the primary grades regarding dusting and sweeping. How far should this instruction be theoretical and how far practical? 8. How do you prepare starch for use on collars and cuffs? How for use on skirts? 9. In what ways can the large number of deaths of young children in the Philippines be reduced? Explain briefly the instruction you would give for this purpose. 10. Draft a pattern for a boy's plain shirt and tell how it should be made giving kinds of stitches and seams used.

Iron working.—(Any two of the questions may be omitted, except the last; the last must be answered.) 1. Give full directions for building a fire in a blacksmith's forge so as to obtain best results from amount of fuel used. 2. Name five tools used in blacksmithing. Give a sketch of each, and state the purposes of each. 3. Give a short description of each of the following processes: (a) drawing, (b) pointing, (c) bending, (d) scarfing, (e) upsetting. 4. Make a careful comparison of wrought iron and cast iron, stating fully how they differ. 5. Describe the process of hardening and tempering. 6. Name the tools and materials used in soldering and give the use of each. 7. Tell how the following are performed: (a) brazing, (b) welding. 8. What is meant by "forging hollow" and how may it be avoided? Illustrate by sketch. 9. Explain fully how a steel tire should be set. 10. Make complete working drawings in pencil for the construction of a flat one-piece S-wrench 8 inches over all to fit nuts (a) $\frac{1}{2}$ -inch square and (b) 1-inch square.

Weaving.—1. Describe the process of finding the shrinkage of warp and weft in weaving. 2. What is meant by "sizing" and how is it done? 3. Give a design for a two-harness weave and a design for a three-harness weave, ruling the paper in cross-section and representing the weave thereon. 4. Define (a) warp, (b) weft, (c) harness, (d) reeds, and (e) shuttle, as these terms are used with reference to weaving. 5. Describe the processes of (a) spooling, (b) warping, (c) beaming. 6. Describe in full the process of making either hats or mats, including description of how the material is obtained, prepared, and woven, and how the finishing is done. 7. Explain fully what is meant by No. 4/s cotton yarn.

Wood working.—(Any two of the questions may be omitted, except the last; the last must be answered.) 1. Describe the essential parts of a jack plane and explain how a jack plane should be sharpened. 2. Make sketches showing clearly three types of wood joints. 3. What is a miter box and for what class of woodworking is it used? 4. Name and define the necessary parts of a woodworking bench. Define: bench-hook, clamp,

brace, dividers. 5. Why are the teeth of a saw set? Make a sketch of a rip-saw, showing how the teeth are set. 6. Describe the steps in planing and squaring a piece of wood 3×8×20 cm. from the rough stock. What should be the dimensions of the rough stock? 7. Describe the steps in making a drawing board 40 cm. X 60 cm. so that it will not warp. Make working sketches. 8. Where and how would you pile green sawed lumber for seasoning? 9. Describe in detail the construction of (a) a nipa or (b) a grass roof for a small house. Include the construction of the frame of the roof and the entire preparation and placing of the nipa or grass. 10. Make complete free-hand working sketches (with dimensions) for the construction of a carpenter's saw-horse (or trestle).

EXAMINATIONS FOR THE BUREAU OF HEALTH SERVICE.

Health officer and physician examination.

SEC. 33. Time allowed, two days of seven hours each; the first four subjects are given on the first day and the remaining subjects on the second day, except that of experience and training, which is rated on the evidence submitted by the applicant in his application papers. Application Forms Nos. 2 and 47. In addition to salary, the expenses of travel, subsistence, and quarters while absent from station are allowed. Applicants for this examination must be graduates of reputable medical colleges. Subjects of examination and relative weights on the scale of 100: Discussion of a topic relating to medicine, 5; anatomy and physiology, 10; surgery and surgical pathology, 15; chemistry, materia medica, and therapeutics, 10; bacteriology and hygiene, 15; general pathology and theory and practice of medicine, 20; obstetrics and gynecology, 10; experience and training, 15. The following are specimen questions and tests in this examination:

Discussion.—In a paper of not less than 200 words discuss practical sanitation applicable to the habitations of the lower classes in the Philippine Islands. This exercise is designed to test the competitor's skill in composition as well as his knowledge of the subject-matter.

Anatomy and physiology.—1. Locate and give relations of each of five abdominal organs. 2. Name the muscles that are instrumental in the movements of the eyeball, and give the origin, insertion, and innervation of each. 3. Describe the ankle joint. 4. Give the anatomy of inguinal hernia. 5. Name all the branches of the aorta above the diaphragm. 6. What fermentations does the urine undergo after being voided? 7. What is the glycolytic function of the liver? 8. What is the difference between fermentation and putrefaction? 9. Enumerate the phosphates ingested and eliminated and show their importance in the animal economy. 10. Give one function of each of the following organs: Semicircular canals, iris, pancreas, cerebellum, spleen.

Surgery and surgical pathology.—1. Describe various forms of conjunctivitis and give the treatment for each form. 2. Describe the usual means and methods of producing anesthesia, both local and general. 3. State five complications that may follow abdominal section, and give treatment of each. 4. Describe remedial measures for varicose veins of the leg. 5. Differentiate anatomically between the following forms of inguinal hernia: Oblique, direct, complete, and incomplete. 6. Name different forms, and give the etiology and treatment, of peritonitis. 7. Give the etiology and treatment of chronic cystitis in the male. 8. Give a diagnosis between prostatitis and cystitis. 9. Describe two surgical operations for the relief of stricture of the urethra. 10. Describe the changes that occur in inflammation.

Chemistry, materia medica, and therapeutics.—1. Give two methods of preparing chlorine. 2. What is formaldehyde? State how it is prepared and how used. 3. Give the product and uses of sulphur burned in air. Explain the bleaching property of sulphur. 4. What is glycerin? Give its chemical properties. How is it obtained? 5. Name five of the preparations of iron and give the medicinal uses and dose of each. 6. Give the physiologic actions and the therapeutic uses of the simple bitters. How do they differ from the aromatic bitters? 7. Give the physiologic action, medicinal uses, and preparations with doses of belladonna. 8. Describe serum therapy. Illustrate its use. 9. What is meant by cholagogue, demulcent, mydriatic, oxytocic, and anthelmintic? Name a drug as an illustration of each class and give the dose of each one mentioned. 10. What is the usual composition of baking powders? How are they adulterated? What is their mode of action?

Bacteriology and hygiene.—1. Describe the microorganism of either bubonic plague or malaria. 2. Describe the pathogenic organism which produces typhoid fever. 3. Give a classification of bacteria and name an organism illustrating each class. 4. Of the pathogenic microorganisms, name two of the most important animal parasites and the disease produced by each. 5. Name four diseases transmissible from domesticated animals to man and give the pathogenesis of any one of them. 6. What is the best method of disinfecting (a) water-closets, (b) a house, (c) the clothing of persons who have contagious diseases? 7. Describe a method by which the occurrence of lead in water is demonstrated. 8. What steps should be taken to render polluted water harmless? 9. How should one treat a corpse where death occurs from an acute contagious disease? How should one disinfect a house in which had occurred bubonic plague? 10. In the absence of a system of sewerage and of a modern system of water supply, what are the best methods for the disposal of excreta and for securing a supply of pure water?

General pathology and theory and practice of medicine.—1. Describe amebic dysentery and outline appropriate treatment. 2. Give the pathology, differential diagnosis, and treatment of bubonic plague. 3. Give the physical signs of acute pleurisy (a) before effusion and (b) after effusion. 4. Describe beri-beri, giving symptoms, pathology, diagnosis, prognosis, and treatment. 5. Give the diagnosis and indications for treatment of a case of membranous croup. 6. Give a differential diagnosis between gout, chronic articular rheumatism, and rheumatoid arthritis. 7. Give the etiology, diagnosis, and sequelae of Asiatic cholera. 8. Define hematemesis, hemoptysis, melena, hemophilia, and epistaxis. 9. Give the symptoms preceding the eruption (a) of scarlatina and (b) of rubella, and name the sequelae of each. 10. State the characteristics of each of the following: Lithemia, chlorosis, leucocythemia, and Addison's disease.

Obstetrics and gynecology.—1. How are phthisis and organic heart lesions modified by pregnancy? 2. A woman having missed two successive periodic functions (menstruation) suspects pregnancy as the cause; state the method or methods by which the physician would arrive at a positive diagnosis. 3. What is the principal danger to the child during labor in a breech presentation, and what should be done to reduce the danger to a minimum? 4. If the presenting part in a labor case is the shoulder, what should be done to render delivery possible, and how should it be done? 5. What are the indications for the use of forceps in a labor case? What two general classes of forceps are used? 6. What are the symptoms of uterine fibromata? 7. How should hypertrophy of the cervix uteri be treated? 8. What means are employed for the correction of displacements of the uterus? 9. Enumerate the sequelae which frequently follow abortion. 10. Describe in detail the operation for the removal of an ovarian tumor.

Assistant physician examination.

SEC. 34. Time allowed, two days of five hours each, the first four subjects being given on the first day. Application Forms Nos. 2 and 47. The subjects and weights of this examination are the same as those of the health officer and physician examination but the examination is less rigid and the questions and tests are fewer in number and simpler in character.

Trained nurse examination.

SEC. 35. Time allowed, seven hours. Application Form No. 2. Applicants must be graduates of recognized training schools, and have had at least one year's subsequent experience in a modern and well-equipped hospital. Age limits, 20 to 40. Subjects of examination and relative weights on the scale of 100: Anatomy and physiology, 5; hygiene of the sick room, 20; general nursing, 20; surgical nursing, 20; obstetrical nursing, 20; experience and training, 15. No specimen questions are furnished. The scope of the examination is within the limits of the usual course of study for nurses and covers the practical training required for graduation.

Hospital attendant examination.

SEC. 36. Time allowed, six hours. Application Form No. 2. Applicants should be graduates of a training school or have served in the hospital corps of the United States Army or Navy. Usual entrance salary, \$1,200. In most positions both subsistence and quarters are furnished in addition to the salary; in some, quarters only. Subjects of examination and relative weights on the scale of 100: Spelling (second grade), 5; arithmetic (second grade), 5; letter writing, 10; penmanship, 5; practical questions, 40; experience and training, 35. The following are specimen questions in the fifth subject of this examination:

1. Give the personal hygiene applicable to a new patient on being received at a hospital.
2. Describe the care and condition of a properly kept ward or sick room.
3. Name and describe five mechanical appliances used for relief of bed patients.
4. State how cleanliness may be maintained in a sick ward.
5. Name three disinfectants in common use and describe the application and use of each one named.
6. What cautions should be observed in handling and giving medicines?
7. Describe the preparation of a patient for a major surgical operation.
8. Describe the preparation of the bed for a bed patient and the manner of changing the sheets, pillows, and patient's linen.
9. State fully the care to be taken of a room: (a) While occupied by a patient with an infectious disease; (b) after his removal therefrom.
10. What disposition should be made of the excreta of a typhoid fever patient?

Pharmacist and dispensing clerk examination.

SEC. 37. Time allowed, eight hours. Application Form No. 2. Subjects of examination and relative weights on the scale of 100: Second grade examination, 25; pharmacy and chemistry, 30; materia medica, 20; experience and training, 25. The following are specimen questions and tests in this examination:

Pharmacy and chemistry.—1. Give the formula and method of making paregoric. How many parts of opium are in 100 parts of this tincture? 2. What are pills? Of what two parts does a pill mass usually consist? What are the essential requirements of a pill mass and what are the ordinary excipients used? Describe the process of making pills of phosphorus. 3. In the metric system, what is the unit of volume; of weight? Express the weight of 1 liter of official alcohol according to the metric system. 4. What is the ordinary best base for suppositories? How are gelatine suppositories made; rolled suppositories; molded suppositories? 5. What is the per cent of alcohol usually present in malt liquors, light wines, port or sherry, whisky, and brandy? 6. What are ointments? In what different ways are they made? What care should be exercised in the making and dispensing of ointments? 7. Describe the chemical change that takes place in the preparation of sirup of iodide of iron. Why should this sirup be exposed to the action of light? 8. Give the names and formulæ of the different oxides of nitrogen. Which of these is "laughing gas"? Which takes an important part in the manufacture of sulphuric acid? Describe its action in this process. 9. What is an alkali? Give an example. 10. What is meant by each of the following symbols: Na, Ca, P, N, Hg, C, As, Sb, S, K?

Materia medica.—1. From what is lard obtained? How is it prepared? What processes are used for its purification? Describe its odor, taste, solubility, etc. Of what does it consist? What are its uses in medicine? 2. What is the official title of cod-liver oil? How is it obtained? What are its constituents and medicinal properties? 3. What is meant by each of the following signs or abbreviations: gm., c. c., O., Sig., 3ss., Ft., coch., Ol., aq. bull., and gtt.? 4. What is Dover's powder? What are its medicinal uses and dose? 5. Give the names of five vegetable cathartics; of five diuretics. Give the dose of each one named. 6. Name five drugs used as emetics. Give the dose of each necessary to produce emesis. 7. Name the appropriate antidotes in poisoning by each of the following: Opium, aconite, phosphorus, arsenic. 8. Name five alkaloids that are official, giving origin, uses, and dose of each. 9. Name five of the official preparations of bismuth and give the therapeutic uses and doses of each. 10. What is amyl nitrite? What are its general physical characteristics and in what conditions is it a valuable therapeutic agent?

Assistant pharmacist examination.

SEC. 38. Time allowed, eight hours. Application Form No. 2. Subjects of examination and relative weights on the scale of 100: Third grade examination, 25; pharmacy and chemistry, 30; materia medica, 20; experience and training, 25. The questions in pharmacy, chemistry, and materia medica are simpler in character than those in the pharmacist and dispensing clerk examination.

EXAMINATIONS FOR THE BUREAU OF PRINTING.

Printer examination.

SEC. 39. Application Form No. 2. This examination is held in the United States and in Manila as the needs of the service require. The usual entrance salary is ₱4,000 per annum. The corps of "Printers" is limited, and men must be secured with the widest range of knowledge in the trade. Their assignments range from elementary work to the editing of scientific and technical manuscript. They are designated "Craftsman Instructors" and must possess ability to instruct Filipinos in all the specialties of the trade, and, besides, must have executive ability in order that advancement to executive positions can be made as vacancies occur. It is readily seen that men of mediocre ability can not be considered. Subjects of the examination and relative weights on the scale of 100: Proof reading, 20; copy editing, 40; trade questions, 20; training, experience, and fitness, 20. The practical questions in subjects 1, 2, and 3, cover the following fields:

Proof reading: Reading and marking galley proof of straight and tabular matter requiring correction of typographical errors, abbreviations, type, and style.

Copy editing: Preparation of about 10 sheets of manuscript. Competitors will be required to indicate title page, new odd or even pages, type of text and headings, cast, all

indentions except at paragraphs, and otherwise to prepare the copy so that it can be followed literally by the printer.

Trade questions: Questions on job and book composition, making-up, imposing, bank work, work-order writing—written instructions for processing work—estimating, and computing; also questions as to the competitor's experience in the various specialties of the trade and knowledge of the auxiliary trades of pressman, book-binder, electrotyper, and photo-engraver.

Junior compositor examination.

Application Form No. 2. Subjects of the examination and relative weights on the scale of 100: Spelling (second grade), 5; arithmetic (third grade), 5; penmanship, 5; copying from plain copy (second grade), 5; correcting proof, 30; experience and training, 50.

Apprentice examination.

Application Form No. 2. Age limitations for entrance, 15 to 20 years. It is the desire of the Bureau of Printing to select some apprentices from each province. Applicants should be graduates of intermediate or high schools, and at least 155 centimeters in height and 46 kilograms in weight, stripped. Transportation expenses from place of residence to Manila are paid after the completion of six months' satisfactory service. The Bureau of Civil Service desires to obtain a few eligibles in each province. Filipinos appointed to the position of apprentice in the Bureau of Printing are liberally compensated, and an opportunity is provided for learning the art of printing under the most favorable circumstances. The course of apprenticeship is covered by classes 6, 5, 4, 3, 2, and 1, six months each; junior craftsman, one year. The compensation per diem is as follows: Class 6, ₱0.80; class 5, ₱0.90; class 4, ₱1; class 3, ₱1.20; class 2, ₱1.40; class 1, ₱1.80; junior craftsman, ₱2.25. Promotion from one class to another is made upon merit after each six months' period. Each applicant should state in his application the branch of trade he desires to follow, such as compositor, bookbinder, pressman, etc. The certificate of physical examination outlined on Application Form No. 2 must be furnished filled by a district health officer or by a medical officer of the United States Army, Navy, or Quarantine Service or of the Philippines Constabulary.

EXAMINATIONS FOR THE POLICE AND FIRE SERVICES OF MANILA.

First-class patrolman examination.

SEC. 40. In accordance with the provisions of section 9 of Act No. 286, the examination for first-class patrolman is given in the English language only. Application Form No. 2. Salary, first year ₱1,800 per annum, with quarters, ₱2,000 for the second year, ₱2,160 for the third year, and ₱2,280 for the fourth year of service. All competitors must be at least 173 centimeters or 5 feet 8 inches in height and 63.5 kilograms or 140 pounds in weight, stripped. Those who pass the examination have excellent prospects of immediate appointment, as the demand for eligibles constantly exceeds the supply. Men of good physique and the experience of one or more enlistments in the United States Army, Navy, or Marine Corps should be able to qualify without difficulty. Subjects of examination and relative weights on the scale of 100: Second grade examination, 30; physical condition, 35; experience and training, 35. Physical examination of all applicants for the position above-named is made by medical examiners of

the Bureau of Civil Service without expense to applicants, or may be made by surgeons of the United States Army, Navy, or Quarantine Service. Certificates from other physicians will not be accepted. All competitors must be physically sound and well proportioned. Vacancies occurring in the higher classes and grades in the police service, if not filled by transfer, reinstatement, or reduction, shall be filled by promotion in accordance with the provisions of Civil Service Rule IX, and section 9 of Act No. 286.

Third-class patrolman examination.

Application Form No. 2. Salary, first year ₱480 per annum, with quarters, ₱600 per annum for the second year, ₱660 per annum for the third year, and ₱720 per annum for the fourth year of service. All competitors must be at least 163 centimeters or 5 feet 4 inches in height and 49.9 kilograms or 110 pounds in weight, stripped. Subjects of examination and relative weights on the scale of 100: Third grade examination, 50; physical condition, 50.

First-class fireman examination.

Time allowed, three hours. Application Form No. 2. This examination is given in the English language only. Competitors must be at least 163 centimeters or 5 feet 4 inches in height and 59 kilograms or 130 pounds in weight, stripped. Salary, first year ₱1,800 per annum, with quarters, ₱2,000 per annum for the second year, ₱2,160 for the third year, and ₱2,280 for the fourth year of service. Those who pass the examination have excellent prospects of immediate appointment as the demand for eligibles constantly exceeds the supply. Men of good physique and fair experience with horses or machinery should be able to qualify without difficulty. For physical examination for firemen see information given above for patrolmen. All competitors must be physically sound and well proportioned. Subjects of examination and relative weights on the scale of 100: Letter writing, 15; arithmetic, 15; physical condition, 35; experience and training, 35.

Second-class fireman examination.

Application and examination Form No. 35. All competitors must be at least 157 centimeters or 5 feet 2 inches in height and 49.9 kilograms or 110 pounds in weight, stripped. Salary, first year ₱480 per annum, with quarters, ₱600 per annum for the second year, ₱660 per annum for the third year, and ₱720 per annum for the fourth year of service. Applicants for the position of second-class fireman must furnish evidence of proficiency in the driving, care, and handling of horses, including native ponies, and of familiarity with the streets of the city of Manila, including its suburbs.

First-class engineer examination.

This examination is given in the English language only. Application and examination Form No. 35. All competitors must be at least 163 centimeters or 5 feet 4 inches in height and 56.7 kilograms or 125 pounds in weight, stripped. Salary, first year ₱2,400 per annum, with quarters, ₱2,600 per annum for the second year, and ₱2,800 per annum for the third year of service.

Second-class engineer examination.

Application Form No. 35. All competitors must be at least 157 centimeters or 5 feet 2 inches in height and 49.9 kilograms or 110 pounds in weight, stripped. Salary, first year ₱960 per annum, with quarters, and ₱1,200 per annum for the second year of service.

EXAMINATIONS FOR GUARD, PRISON SERVICE.

SEC. 41. There are two classes of guards. In one, a knowledge of the English language is required, and in the other a knowledge of the English language is not a prerequisite. Application Form No. 2. The salary of guards of the first class is ₱1,800 per annum, with quarters, during the first year of service, ₱2,000 during the second year, ₱2,160 during the third year, and ₱2,280 during the fourth year. The salary of guards of the second class is ₱360 with quarters during the first six months of service, ₱480 during the second six months, ₱600 during the second year, ₱660 during the third year, and ₱720 during the fourth year. Applicants for the position of guard of the first class are given the same examination as patrolmen of the first class, with the addition of marksmanship. Those who pass the examination for guard of the first class have excellent chances of immediate appointment, as the demand for eligibles constantly exceeds the supply. Men of good physique and the experience of one or more enlistments in the United States Army, Navy, or Marine Corps should be able to qualify without difficulty. Applicants for the position of guard of the second class are given the same examination as patrolmen of the third class with the addition of marksmanship: *Provided*, That in the matter of physical requirements, guards of the first class must be at least 168 centimeters or 5 feet 6 inches in height and 59 kilograms or 130 pounds in weight, stripped, and guards of the second class must be at least 157 centimeters or 5 feet 2 inches in height and 45.4 kilograms or 100 pounds in weight, stripped. For physical examination see information given above for patrolmen. Applicants are tested in marksmanship, the rating obtained being made a part of the rating for experience and training.

EXAMINATION FOR THE MESSENGER SERVICE.

SEC. 42. The position of messenger with a salary of more than ₱240 per annum is in the classified service and vacancies therein must be filled on certification by the Bureau of Civil Service. Minimum age limitation, 15 years. Applicants must be able to read and write English. Application Form No. 2 must be filled in the applicant's own handwriting and must be written in English.

PROVINCIAL SERVICE.

Procedure required in making appointments to classified positions.

SEC. 43. All positions in the Philippine civil service in the provinces not specifically exempted from examination requirements by the provisions of section 1 of Act 1698 are in the classified service and may be filled only in accordance with the provisions of section 5 and other provisions of this Act, by appointment or employment authorized by the Bureau of Civil Service. The creation of a position does not either *ipso facto* or *ipso jure*

carry with it authority to appoint to the position. The creation of a position is a legislative act. The filling of a position is an executive or administrative act and is required to be done, if at all, according to law.

Regular and permanent appointment to classified positions can legally be made only after obtaining eligibility in the prescribed civil service examinations. This method of selection and appointment is intended to offer opportunity to all who come within the prescribed limitations to enter the service through open competitive examinations and is intended to prohibit entrance to the service through favor or in any other way except as provided by civil service law and rules.

Those who qualify in examinations and whose names are placed on registers of eligibles, and no others, are entitled to receive probational appointment, and first consideration for temporary employment. They thus earn the right of preference in appointment and must be selected and given a fair trial for a "probationary" period before the temporary employment of any other person who has not qualified in examination can be authorized by the Bureau of Civil Service.

The method of entering the classified service through civil service examinations is now firmly established and offers to the persons thus appointed, who maintain a good record, an honorable career by promotion through merit to the higher grades as integrity, capability, and faithfulness warrant. It is therefore earnestly desired that provincial officials advise all who desire positions in the classified civil service that they should enter the proper examination without delay, in order that they may obtain eligibility for regular and permanent appointment, which carries with it important privileges.

The provincial positions specifically exempted from examination requirements by the provisions of section 1 of Act 1698 are provincial governors, third members of provincial boards, provincial fiscals, semiskilled and unskilled laborers whose rate of compensation is ₱720 or less per annum or ₱2.40 or less per diem, and all other persons whose rate of compensation is ₱240 or less per annum. If there is any doubt as to whether any position is in the classified service, inquiry should be made of the Bureau of Civil Service as contemplated by section 5 (a) of Act 1698.

Examinations and appointments in the provinces.

The members of the provincial board and a teacher or Constabulary officer residing in the capital of the province are usually designated by the Bureau of Civil Service to serve as members of the provincial examining committee. Examinations will be held throughout the Islands as enumerated in the schedule of examinations.

Applicants for all examinations held in the provinces should apply by letter or in person to the examining committee of the province in which they reside, for a blank form of application. The blank form must be accurately filled by each applicant and forwarded as soon as possible to the Director of Civil Service who will mail him an admission card. In case the admission card is not received in time, the applicant may report before eight o'clock on the day of examination to the chairman of the examining committee, who will admit him if examination papers are available after all those holding admission cards have been admitted. Applicants living in the Provinces of Bataan, Cavite, and Rizal, will

address the Bureau of Civil Service, Manila, for application forms and will be examined in Manila. Examinations begin promptly at 8 o'clock, and all applicants should be in the examination room at 7.45 a. m. The names of those who pass the examinations are entered upon a list of eligibles for the province in which they reside. Appointments to the provincial service are limited, wherever possible, to residents of the province in which the vacancies occur. From the registers obtained as a result of examinations held in the provinces appointments are made, not only to positions in the provincial service proper, but also to positions in the following bureaus: Audits, Constabulary, Customs, Education, Forestry, Internal Revenue, Justice, Lands, Posts, Public Works, and Weather.

Vacancies in the position of provincial treasurer are usually filled by transfer, by reinstatement, or by promotion. Promotion to the position of provincial treasurer may be made as a result of the assistant, the book-keeper, the auditing clerk, the disbursing clerk, the first grade English or the assistant provincial treasurer examination.

Assistant provincial treasurer examination.

SEC. 44. Appointments as a result of this examination will be made to the position of deputy provincial treasurer. Time allowed, two days of seven hours each. The first four subjects are given on one day and the fifth subject on the other. Application Form No. 2. Subjects of examination and relative weights on the scale of 100: Arithmetic (first grade), 20; letter writing (first grade), 15; penmanship, 5; internal revenue law and regulations, 15; provincial and municipal administration, 25; experience and training, 20.

In addition to questions requiring a thorough knowledge of the Internal Revenue Law and Regulations, the fourth subject may include arithmetical questions on weights and measures (see Act No. 1519) and the metric system. The fifth subject tests the competitor's knowledge of provincial and municipal administration. Copies of the Internal Revenue Law and Regulations are on file in the office of each municipal treasurer throughout the Islands and may be consulted in those offices. The questions are given only in the English language, and competitors must write their answers in English.

Ordinarily one full year of practical experience in the various branches of work to which a deputy may be assigned will be required before promotion to the position of assistant provincial treasurer (now termed chief clerk or chief deputy) in one of the smaller provinces will be considered. From the position of assistant provincial treasurer in a small province promotion may be made to a similar position in one of the larger provinces. After demonstration of exceptional efficiency and fitness in the position of assistant provincial treasurer in a large province an opportunity will be given for independent work as acting provincial treasurer of some province of which the treasurer is absent on accrued leave. From among assistant provincial treasurers who have demonstrated their fitness for advancement after trial as acting provincial treasurer, selection will be made for permanent appointment to vacancies occurring in the position of provincial treasurer, assignment being first made to one of the smaller provinces, and subsequent promotion being allowed to vacancies occurring in larger provinces. The frequency with which vacancies occur in the various grades in the personnel of the provincial treasury service is such as to insure promotion as rapidly as candidates may, by practical experience, fit themselves therefor. It is required that appointees furnish the necessary fidelity bonds. It will, therefore, be futile for any man whose record and antecedents will not bear the closest scrutiny to seek employment in this service.

Municipal treasurer examinations.

SEC. 45. Appointment to the position of municipal treasurer requires eligibility in a civil service examination. Appointments to positions paying ₱600 per annum or more (total combined salary as municipal treasurer and as deputy of the provincial treasurer) are made from the second grade register of eligibles; appointments to positions paying less than ₱600 and more than ₱240 per annum are made from the second or third grade registers; appointments to positions the combined salary of which is ₱240 per annum or less may be made without examination or other

action by the Bureau of Civil Service. Form No. 33 will not be used in making appointments at ₱240 per annum or less; such appointments should, however, be reported in monthly report on Civil Service Form No. 3, with a statement showing the date and place of birth of the appointee.

Examinations for this position are noncompetitive, and any person whose name is on the eligible registers may be selected for appointment, subject to the maximum salary limitations. There is no maximum age limitation for admission to examination with a view to appointment to this position.

Act No. 1846 provides that municipal treasurers "may be removed from office by the provincial board for cause." When a municipal treasurer is removed from office by a provincial board, or his resignation accepted unfavorably to reinstatement, a copy of the charges and of the resolution of the provincial board removing him or accepting his resignation will be transmitted to the Bureau of Civil Service, and such separation reported on Civil Service Form No. 3.

A municipal treasurer, whether or not he receives salary as deputy of the provincial treasurer, is not entitled to leave of absence provided by Act No. 1698.

Report of ratings.

SEC. 46. After a competitor's papers have been rated he shall be duly notified of the result thereof by the Bureau of Civil Service. *Letters inquiring how soon papers will be rated serve only to delay the work.* If the application of a competitor who enters an examination is not complete in every particular the name of such competitor will not be entered upon the eligible register or report of rating sent until the application is completed.

In cases of collusion, or cancelation of an examination for any other cause, the names of the competitors will not be entered upon the eligible register should they obtain eligible ratings, nor will report of ratings obtained be sent. The examination papers of all competitors guilty of collusion will be canceled; such competitors will not be permitted to take any other examination for at least one year. The examination papers from which copying is done, even though without the owner's knowledge, are canceled as well as the examination papers of the competitor who copies.

After being notified of the results of their examinations competitors may review their papers in the office of the Bureau of Civil Service and have the ratings explained to them if they so desire. Appeals from the ratings are sometimes made by competitors, but the prospect of securing a higher rating by such action is very remote. Errors on the part of examiners in making charges are rare, as the work of each examiner is reviewed by another.

The papers of all competitors in an examination are rated at the same time and no competitor's papers will be rated in advance of others.

Change of post-office address.

SEC. 47. Eligibles must keep the Bureau of Civil Service informed of any change of post-office address. A failure to do so will be treated as the fault of the eligible, and may result in his losing an opportunity of appointment. Request to have the address changed should be made by letter, and such letter should relate only to the change of address.

When period of eligibility begins and ends.

SEC. 48. The period of eligibility on all provincial registers and on all registers resulting from examinations given both in the United States and in the Islands is two years from the date the names are entered on the register. For most other eligible registers resulting from examinations held in Manila the period of eligibility is one year. Under the rules the period of eligibility may be extended, in the discretion of the Bureau of Civil Service, if the needs of the service warrant it; the period of eligibility of any one eligible can not be extended, and the eligibility of all the eligibles as a result of a particular kind of examination may be extended only when the needs of the service require. The date of entering a name on the register is usually but a few days subsequent to the date of the notice of eligibility.

When reexaminations are allowed.

SEC. 49. A competitor who passes an examination will not be allowed a reexamination within six months. When reexamination is allowed before the expiration of eligibility, a new application must be filed. A person who has passed an examination and obtained an appointment as a result thereof will not again be admitted to an examination of the same or a lower grade while in the Philippine civil service: *Provided*, That persons who have qualified in the Filipino teacher examination as given prior to June, 1906, may be admitted to the junior teacher examination on filing a completed application. A competitor who fails to obtain an eligible rating in an examination, but obtains a rating of 65 or above, may be admitted to the next regular examination. A competitor who fails to secure a rating of 65 or above in any examination, may not be admitted to an examination of the same or a higher grade within six months: *Provided*, That such a competitor may be admitted to the examination of the same grade occurring next prior to the expiration of the period of six months, with the condition that in the event an eligible rating is obtained his name will not be entered on the register until the expiration of said period. Competitors who claim that they were unable to do themselves justice because of illness must abide by the result of the examination. A special reexamination will be allowed only in cases where it is shown that competitors have suffered injustice through an act of the Bureau of Civil Service or one of its examiners. A competitor reexamined within six months will not be required to file an application for such reexamination.

Prospects of appointment and promotion.

SEC. 50. Vacancies are constantly occurring in the service. Competitors who obtain good ratings as a result of the higher examinations taken in English generally receive appointment soon after registration. The number of eligibles as a result of the assistant, teacher, civil engineer, surveyor, stenographer, junior stenographer, typewriter, junior typewriter, forester, bookkeeper, veterinarian, hospital attendant, first-class patrolman, first-class fireman, and first-class prison guard examinations and of other eligibles with scientific, technical, or professional qualifications is usually too small to meet the needs of the service.

Appointment to the service is usually in the lower grades, the higher grades being generally filled by promotion. The prospects of promotion of the competent and efficient are good.

**Examination requirements relating to appointment and promotion
(Civil Service Rule XI).**

SEC. 51. 1. Probational appointment or promotion as a result of eligibility in the third grade, English or Spanish, examination shall not be made to positions the salary or compensation of which is above Class J.

2. Probational appointment or promotion as a result of eligibility in the second-grade Spanish, junior typewriter, junior draftsman, junior stenographer Spanish, or ranger examination shall not be made to positions the salary or compensation of which is above Class E.

3. Probational appointment as a result of eligibility in the second-grade English, first-grade Spanish, junior translator, junior stenographer English, clerk of court Spanish, junior technical, junior computer, scientific assistant, or junior teacher examination shall not be made to positions the salary or compensation of which is above the minimum of Class D; promotion as a result of eligibility in any of these examinations shall not be made to positions the salary or compensation of which is above Class C. The basic subjects of the junior translator examination are now given in English only, and promotion as a result of eligibility in this examination heretofore taken with basic subjects in Spanish shall not be made to positions the salary or compensation of which is above Class E.

4. Probational appointment or promotion as a result of eligibility in the typewriter examination shall not be made to positions the salary or compensation of which is above Class A.

5. Probational appointment or promotion as a result of eligibility in the interpreter examination shall not be made to positions the salary or compensation of which is above Class A, or as a result of eligibility in the junior interpreter examination to positions the salary or compensation of which is above Class E. Eligibility in these examinations qualifies for appointment and promotion to positions of interpreter only, and not to positions whose duties are clerical.

6. Eligibility in the first-grade English, assistant, teacher, bookkeeper, stenographer, or translator examination qualifies for appointment to or promotion in clerical positions without further examination. The basic subjects of the translator examination are now given in English only, and promotion as a result of eligibility in this examination heretofore taken with basic subjects in Spanish shall not be made to positions the salary or compensation of which is above Class A. Probational appointment or promotion as a result of eligibility in the bookkeeper examination with basic subjects in Spanish shall not be made to positions the salary or compensation of which is above Class A.

